

THE YALE LAW JOURNAL

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Beyond Nudging: Debiasing Consumers Through Mixed Framing

ABSTRACT. The consumer-protection literature can be divided into two camps: laissez-faire libertarianism and paternalism. Paternalism, as advanced by behavioral law and economics, calls for nudging consumers toward their utility-maximizing preference. Laissez-faire libertarianism, instead, calls for relying on rational-choice theory and the free market to allocate consumer goods. Although each camp presents the other as its diametric opponent, this Note shows that this dichotomy is overstated. Neither camp is incompatible with the other, nor infallible on its own. Through an original behavioral study, this Note reveals flaws in the fundamental assumptions of both camps: that no information can be conveyed neutrally (behavioral law and economics) and that consumer-oriented regulation diminishes autonomy (rational-choice theory). It does so by focusing on an understudied form of consumer-protection regulation: mixed framing. Legal scholars and regulators have largely ignored this phenomenon, yet it offers a more robust and actionable regulatory approach than the existing literature and one that is distinct from both paternalism and libertarianism. By examining the case study of food-safety regulations, this Note sketches the analytic and normative case for why regulators should embrace mixed framing. Using a process of debiasing through mixed framing, agencies can promulgate rules that minimize the risk of deceptive advertising tactics and maximize the provision of neutral and complete information – without running afoul of the First Amendment or falling into paternalistic restrictions on autonomy.

AUTHOR. Yale Law School, J.D. 2018. I am immensely grateful to Christine Jolls for her feedback and encouragement, and to Douglas Kysar for his supervision during the inception of this project. I would also like to thank Guido Calabresi, Daryl Levinson, Allison Zieve, Patrick Baker, Yena Lee, Inho Andrew Mun, Stuart Shirrell, Sandro Romano, Anthony Sampson, and all of the participants in the 2017 Products Liability seminar for several insightful conversations. Additional thanks to the editors of the *Yale Law Journal*, and in particular Eliza Pan, for their careful editing. And, of course, I thank Erin Alexander, who disproves the self-interest assumption on a daily basis. This Note was awarded the Judge Ralph K. Winter Prize for the best student paper in law and economics, and it was made possible through the generous support of the Oscar M. Ruebhausen Fund.



NOTE CONTENTS

INTRODUCTION	2036
I. ATTRIBUTE FRAMING	2040
A. The Behavioral Economics of Attribute Framing	2041
B. Mixed Framing: An Understudied Phenomenon	2045
II. MIXED FRAMING: A CASE STUDY	2050
A. The History of Agency Regulation of Percent Fat-Free Statements	2052
B. An Original Behavioral Survey: Attribute Framing and Percentage Statements	2055
III. DEBIASING THROUGH MIXED FRAMES: A NEW APPROACH TO REGULATING FOOD PRODUCTS	2062
A. A Policy Proposal: Mixed Frames as the Solution	2062
B. Shortcomings in the Current Food-Safety Regulatory Scheme	2064
1. Misleading	2065
2. Technical Terms	2067
3. Bold Fonts	2068
C. Making Sense of the Goals of Consumer Regulation	2069
IV. FIRST AMENDMENT AND PATERNALISM CONCERNS	2071
A. First Amendment Challenges to Debiasing Through Mixed Framing	2071
B. What Mixed Framing Is Not: Paternalism and Nudging	2079
1. Traditional Paternalism	2080
2. Libertarian Paternalism and Nudging	2082
CONCLUSION	2084

I know . . . an economist . . . [who] would have said . . . that . . . a discount and a surcharge are the same thing economically. . . . But we live in a world that not everybody is an economist, and many people think it's quite a different thing.

— Justice Stephen Breyer¹

INTRODUCTION

Behavioral law and economics recently went to court. In *Expressions Hair Design v. Schneiderman*, New York merchants challenged a state law permitting discounts for cash purchases but banning equivalent surcharges for credit-card payments.² Both sides appealed to insights about consumer behavior. On the one hand, believing that individuals are affected by bounded rationality,³ behavioral-economics scholars criticized the New York statute as an attempt to “bias[] consumers toward credit-card use.”⁴ On the other hand, law-and-economics scholars—endorsing the assumption that consumers are fully rational and act to maximize expected utility⁵—dismissed the impact of the two different pricing schemes.⁶ Both sides understandably agreed that there was no quantitative difference between equivalent cash discounts and credit-card surcharges. But they disagreed on whether consumers’ responses to the negative frame—that is, the

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1. Transcript of Oral Argument at 10, *Expressions Hair Design v. Schneiderman*, 137 S. Ct. 1144 (2017) (No. 15-1391).
 2. *Expressions Hair Design*, 137 S. Ct. at 1144.
 3. See, e.g., HERBERT A. SIMON, AN EMPIRICALLY BASED MICROECONOMICS 17-18 (1997) (arguing that human behavior is founded on “incomplete and inaccurate knowledge about the consequences of actions” as well as limited information-processing capabilities).
 4. Brief of Scholars of Behavioral Economists as Amici Curiae in Support of Petitioners at 2, *Expressions Hair Design*, 137 S. Ct. 1144 (No. 15-1391), 2016 WL 6994874.
 5. See Richard A. Posner, *Rational Choice, Behavioral Economics, and the Law*, 50 STAN. L. REV. 1551, 1551 (1998) (“For example, a rational person who wants to keep warm will compare the alternative means known to him of keeping warm in terms of . . . utility and disutility, and will choose from this array the means that achieves warmth with the greatest margin of benefit over cost . . .”).
 6. Brief of Amici Curiae International Center for Law & Economics & Scholars of Law & Economics in Support of Respondents at 2, *Expressions Hair Design*, 137 S. Ct. 1144 (No. 15-1391), 2016 WL 7438451.

credit-card surcharge, which primes the additional costs of credit-card use — differed from their reactions to the positive frame — the cash discount. In short, they disagreed on the framing effect.⁷

Ultimately, the U.S. Supreme Court tabled the debate. The Court implicitly accepted that merchants might have some reasons to prefer one kind of pricing scheme over the other.⁸ The Court, however, did not address how the regulatory state ought to interact with behavioral economics. Rather, it remanded the case to the Second Circuit for a decision on whether the no-surcharge law is permissible, either as a regulation of commercial speech or as a disclosure requirement, or is instead an unconstitutional curtailment of First Amendment rights.⁹

Outside of the courts, in the consumer-protection literature, the battle lines have been similarly drawn. On the one hand, behavioral-economics scholars argue that, because there is no neutral way of conveying information, the government should improve people's welfare by influencing their decision-making through paternalistically framed regulatory disclosures.¹⁰ Rational-choice theorists, on the other hand, object to most administrative regulations as attempts to interfere with rational people's autonomy to make decisions about their own utility.¹¹ Scholars view this disagreement as a zero-sum game.¹² And entire books have tried to settle the debate, in vain.¹³

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7. Deborah Frisch, *Reasons for Framing Effects*, 54 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 399, 399 (1993) ("The term 'framing effect' refers to the finding that subjects often respond differently to different descriptions of the same problem.").
 8. See, e.g., *Expressions Hair Design*, 137 S. Ct. at 1149 n.1; Transcript of Oral Argument, *supra* note 1, at 10.
 9. *Expressions Hair Design*, 137 S. Ct. at 1150–52.
 10. See, e.g., Judith Lichtenberg, *For Your Own Good: Informing, Nudging, Coercing*, 14 GEO. J.L. & PUB. POL'Y 663, 667–69 (2016) ("Despite talk about 'full information,' in the real world, information is always partial and incomplete . . . In the real world the distinction between informing people and nudging them almost always breaks down.").
 11. See, e.g., RICCARDO REBONATO, *TAKING LIBERTIES: A CRITICAL EXAMINATION OF LIBERTARIAN PATERNALISM* 153–87 (2012); MARK D. WHITE, *THE MANIPULATION OF CHOICE: ETHICS AND LIBERTARIAN PATERNALISM* 81–102 (2013).
 12. See, e.g., Cass R. Sunstein, *The Storrs Lectures: Behavioral Economics and Paternalism*, 122 YALE L.J. 1826 (2013) (making the case for libertarian paternalism and discussing autonomy-based and welfarist objections to paternalism).
 13. Compare SARAH CONLY, *AGAINST AUTONOMY: JUSTIFYING COERCIVE PATERNALISM* (2013), with REBONATO, *supra* note 11. See also, e.g., Bruce Ian Carlin et al., *Libertarian Paternalism, Information Production, and Financial Decision-Making*, 26 REV. FIN. STUD. 2204 (2013); Edward L. Glaeser, *Paternalism and Psychology*, 73 U. CHI. L. REV. 133 (2006); Joshua D. Wright & Douglas H. Ginsburg, *Behavioral Law and Economics: Its Origins, Fatal Flaws, and Implications for Liberty*, 106 NW. U. L. REV. 1033, 1075–80 (2012).

This Note argues that, in many settings, the dichotomy is overstated. Administrative regulations can take a different approach, one that is neither paternalistic nor libertarian. That is, they can offer dual, or mixed, frames. Mixed framing juxtaposes both positive and negative frames, providing seemingly redundant yet neutral information through mathematically equivalent frames. In other words, mixed framing is an improved, more complete disclosure requirement. The recent debate in the *Expressions Hair Design* litigation exemplifies this approach. In that case, a mixed frame would amount to something like this: “\$10.00 (cash) / \$11.00 (credit-card),” “\$10.00 (cash) / 10% extra for credit card,” or “\$10.00 (cash) / \$1 extra for credit card.” The legality of one or more of these mixed-framing pricing schemes was the exact question that, on remand from the U.S. Supreme Court, the Second Circuit certified to the New York Court of Appeals.¹⁴

But courts are not the only ones who have yet to grapple with mixed framing. In fact, virtually no one has studied the concept.¹⁵ And consumer-protection scholars have yet to fully acknowledge its regulatory potential—let alone notice that our administrative state currently relies on this tool. Surprisingly, indeed, we encounter this framing tool every day in our grocery stores.¹⁶

Mixed framing deserves more attention than it has received. Offering the first systematic empirical analysis of the impact of mixed framing on consumer products,¹⁷ this Note recognizes that there is something intrinsically valuable about mixed frames. That “something” comes to light when focusing on the most elegant and mathematically clean example of mixed frames: “75% fat-

14. See *Expressions Hair Design v. Schneiderman*, 877 F.3d 99, 107 (2d Cir. 2017) (holding that “a merchant complies with [New York law] if and only if the merchant posts the total dollars-and-cents price charged to credit card users,” whether as a single-sticker price or as part of a dual pricing scheme), *certified question answered*, 117 N.E.3d 730, 737 (N.Y. 2018).

15. Porismita Borah, *Conceptual Issues in Framing Theory: A Systematic Examination of a Decade’s Literature*, 61 J. COMM. 246, 257 (2011) (“[T]here is very little research examining the influence of multiple frames and results from the present study show that 3.2% of the studies examined mixed frames.”); Dennis Chong & James N. Druckman, *A Theory of Framing and Opinion Formation in Competitive Elite Environments*, 57 J. COMM. 99, 101 (2007) (“The role of multiple competing frames . . . has gone largely unexplored.”). There are only a handful of medical studies discussing mixed frames. See *infra* notes 67–76.

16. See *infra* notes 114–120 and accompanying text (outlining the use of mixed framing on ground-meat labels).

17. Only one thirty-year-old study on the framing of food attributes devoted a few sentences to discussing mixed frames. See Richard D. Johnson, *Making Judgments when Information Is Missing: Inferences, Biases, and Framing Effects*, 66 ACTA PSYCHOLOGICA 69, 73–77 (1987) (summarizing the data from a small and unrepresentative sample of sixty college students).

free / 25% fat” food labels. Mixed frames can communicate more complete information without nudging consumers in a particular direction, thus appealing to the antipaternalist sentiment in favor of preserving consumer autonomy. And, in a proconsumer fashion, they can reduce the volatile and misleading effects of single frames. This Note’s empirical analysis shows that mixed framing can have a discernible impact on consumer behavior and that percentage labeling of food products is an excellent area to introduce mixed-framing requirements for the disclosure of information.

By focusing on mixed framing, this Note takes a step back from the paternalism/libertarianism debate. In many instances,¹⁸ more paternalistic approaches resulting from the application of behavioral insights to law and economics might be normatively appealing.¹⁹ In others, however, they might be overkill. This Note is more agnostic about the identity of consumers’ preferences or the way in which behavioral biases operate. To regulate efficiently and effectively, agencies often don’t have to paternalistically settle those debates and burn political capital. Instead, in many circumstances, agencies should acknowledge the limits of human cognition isolated by behavioral economists, while adopting an approach that stays clear of both paternalism and libertarianism.

The concept of debiasing through mixed framing, this Note argues, is that novel approach.²⁰ In a nutshell, when regulating how manufacturers voluntarily elect to convey information to consumers through a percentage statement, the government should both facilitate the provision of complete, neutral information *and* maximize consumer autonomy by requiring the disclosure of the complementary frame—thus creating a mixed frame.

The Note proceeds as follows. Part I outlines the behavioral-economics theories of framing that will inform the rest of my analysis. Part II discusses the regulation of food labeling as a case study for this Note’s novel approach to disclosure requirements. Through the first systematic attempt at uncovering the history of food regulation in the context of percentage statements, I focus on a

18. See, e.g., Christine Jolls & Cass R. Sunstein, *Debiasing Through Law*, 35 J. LEGAL STUD. 199, 211 (2006) (explaining that if women “underestimate the value of engaging in recommended self-examinations” to detect breast cancer, there is value in “framing the recommendation to self-examine in terms of losses rather than gains” in order to “increase the probability they attach to benefiting from a self-examination and thus . . . counteract optimism bias”).

19. See Christine Jolls, Cass R. Sunstein & Richard Thaler, *A Behavioral Approach to Law and Economics*, 50 STAN. L. REV. 1471, 1473–75 (1998).

20. I use the term “debiasing” to describe a process that, through neutral and complete information, reduces cognitive biases and enhances the accuracy of consumers’ factual beliefs. Cf. Jolls & Sunstein, *supra* note 18, at 202 (discussing how debiasing through substantive law is a targeted approach, with the goal of pushing boundedly rational individuals in a particular direction).

rather unique phenomenon—mixed frames—that can be observed in the regulatory toolbox of one administrative agency. Because mixed frames have been understudied by behavioral economists and overlooked by legal scholars, I analyze the effects of mixed frames through an original between-subjects study. Relying on those empirical results, Part III maps out the analytic and normative case for why regulators, in cases like food labeling (where a single method of framing information must be chosen), should mandate the use of mixed frames. Part IV argues that, through a process of debiasing through mixed framing, agencies can promulgate disclosure requirements that minimize the risk of misleading and deceptive advertising tactics without running afoul of the First Amendment or falling into paternalistic restrictions on consumers' freedom. A brief conclusion follows, setting out a schematic agenda for further behavioral law-and-economics research on mixed framing.

I. ATTRIBUTE FRAMING

The goal of this Part is to set the stage for a simple claim that should guide our approach to regulation: framing affects rational people's behavior. But not all frames are created equal, and some frames are more neutral than others.²¹ In the face of the rational volatility of different frames, this Note will show that—both empirically and normatively—mixed framing emerges as the superior approach to administrative regulation of attribute disclosures.

First, I survey the behavioral scholarship on attribute frames. Section I.A simply makes the descriptive argument that the impact of frames on cognition cannot be ignored. It deliberately avoids delving into the potential biases that may lead to disparate behavior in response to positive, negative, or mixed frames. And it does not analyze whether framing effects obfuscate or promote one's true preferences. Those considerations are beyond the scope of this Note.

Second, Section I.B introduces the concept of mixed framing and discusses the few studies that have included a mixed-framing condition, mostly limited to the medical literature. Part II will update those studies and expand on their conclusions through the analysis of original empirical data on consumer preferences.

21. Cf. GEORGE ORWELL, *ANIMAL FARM* 125 (1945) ("All animals are equal but some animals are more equal than others.").

A. *The Behavioral Economics of Attribute Framing*

People do not always make choices solely based on their economic consequences.²² Studies have repeatedly shown how individuals, depending on the way they process the information available to them, make judgments that conform or depart from expected rationality. In 1980, for instance, long before *Expressions Hair Design*, Richard Thaler noted that the credit-card industry had lobbied legislators to have any price differential between cash and credit-card purchases labeled as a “cash discount” rather than a “credit-card surcharge”; by framing the price difference as a gain rather than a loss, Thaler explained, consumers would be more likely to use credit cards.²³ This is not surprising: patients are more likely to undergo an operation if they are told that 90% of patients live through the postoperative period than if they are told that 10% die during that same time frame.²⁴ And, similarly, cold cuts labeled “90% fat-free” appear more appealing than those labeled “10% fat.”²⁵ Though these findings contradict traditional rational-choice theory, it is now broadly recognized that behavior is influenced by how information is conveyed.²⁶ “The definition of rationality as coherence is impossibly restrictive.”²⁷

Realizing the inadequacy of the neoclassical economic model, psychologists and behavioral economists have agreed that consumers enjoy *bounded rationality* and are influenced by the framing of information. Herbert Simon introduced the concept of bounded rationality to counteract the neoclassical idea of “global rationality,” which “assumes that the decision maker has a comprehensive, consistent utility function, knows all the alternatives that are available for choice, can compute the expected value of utility associated with each alternative, and chooses the alternative that maximizes expected utility.”²⁸ Bounded rationality, instead, finds the foundation of human behavior in “incomplete and inaccurate

22. See, e.g., Cass R. Sunstein, *Nudges.gov: Behaviorally Informed Regulation*, in THE OXFORD HANDBOOK OF BEHAVIORAL ECONOMICS AND THE LAW 719, 725 (Eyal Zamir & Doron Teichman eds., 2014).

23. Richard Thaler, *Toward a Positive Theory of Consumer Choice*, 1 J. ECON. BEHAV. & ORG. 39, 45 (1980).

24. Donald A. Redelmeier et al., *Understanding Patients' Decisions: Cognitive and Emotional Perspectives*, 270 J. AM. MED. ASS'N 72, 73 (1993).

25. DANIEL KAHNEMAN, THINKING, FAST AND SLOW 88 (2011).

26. See, e.g., Irwin P. Levin et al., *All Frames Are Not Created Equal: A Typology and Critical Analysis of Framing Effects*, 76 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 149, 150 (1998) (describing the role of framing effects in studies across a variety of fields).

27. KAHNEMAN, *supra* note 25, at 411.

28. SIMON, *supra* note 3, at 17.

knowledge about the consequences of actions” as well as limited information-processing capabilities.²⁹ This results in *satisfactory*, rather than *utility maximizing*, decisions.³⁰

Elaborating on Simon’s concept of bounded rationality, some behavioral economists advanced a theory of construction of preference.³¹ Paul Slovic argued that “preferences are not simply read off some master list but are constructed on the spot by an adaptive decision maker” through a series of cognitive tools that boundedly rational consumers use to make decisions.³² In other words, “consumer-preference formation may be more like architecture, building some defensible set of values, rather than like archaeology, uncovering values that are already there.”³³ These “mental gymnastics” cast decision-making as “a highly contingent form of information processing, sensitive to . . . contextual factors.”³⁴

Slovic’s theory was in large part influenced by Daniel Kahneman and Amos Tversky’s foundational work on prospect theory.³⁵ Kahneman and Tversky showed how boundedly rational decision makers often choose based on “mental representations of the options, not the objective states of the world.”³⁶ In particular, equivalent ways of presenting information, which would otherwise appear inconsequential and normatively irrelevant, have a recognizable impact on human decisions; for example, and most famously, decision makers value prospective gains and losses differently.³⁷

Taking prospect theory as a starting point, a large body of research has shown how framing equivalent information in different ways (be they positive or negative) can influence decision-making. Framing effects suggest that people

29. *Id.* at 18.

30. JAMES G. MARCH & HERBERT A. SIMON, ORGANIZATIONS 140-41 (1958).

31. See generally THE CONSTRUCTION OF PREFERENCE (Sarah Lichtenstein & Paul Slovic eds., 2006) (collecting numerous works from different disciplines on the construction of preferences).

32. Paul Slovic, *The Construction of Preference*, 50 AM. PSYCHOLOGIST 364, 369 (1995).

33. James R. Bettman et al., *Constructive Consumer Choice Processes*, 25 J. CONSUMER RES. 187, 188 (1998).

34. Slovic, *supra* note 32, at 369.

35. See Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision Under Risk*, 47 ECONOMETRICA 263 (1979).

36. Sarah Lichtenstein & Paul Slovic, *The Construction of Preference: An Overview*, in THE CONSTRUCTION OF PREFERENCE, *supra* note 31, at 1, 23.

37. Amos Tversky & Daniel Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 SCIENCE 453, 457-58 (1981).

choose “between descriptions of options rather than between the options themselves.”³⁸ Particularly relevant to my research is the phenomenon of *attribute framing*—framing a single attribute in one of multiple logically equivalent ways, which can result in different behavioral outcomes.³⁹ “Attribute framing represents perhaps the simplest case of framing, making it especially useful for gaining a basic understanding of how descriptive valence influences information processing.”⁴⁰ In all instances in which equivalent information is provided with different valences, alternatives are rated more favorably if framed positively.⁴¹ Most commonly, these studies have focused on the impact of framing the same situation in equivalent success or failure rates. Studies have examined the effects of attribute framing on consumer preferences,⁴² negotiations,⁴³ interview candidate selection,⁴⁴ industrial purchasing,⁴⁵ gambling decisions,⁴⁶ resource allocation,⁴⁷ project-funding allocations,⁴⁸ condom use⁴⁹—and the list goes on. Though these results have often been conflated with those obtained under risky choices (described by the endowment effect⁵⁰), risk is not at all a necessary component of attribute framing.

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38. Amos Tversky, *Contrasting Rational and Psychological Principles of Choice*, in *WISE CHOICES: DECISIONS, GAMES, AND NEGOTIATIONS* 5, 7 (Richard J. Zeckhauser et al. eds., 1996).
 39. See Levin et al., *supra* note 26, at 158-59 (explaining and graphically demonstrating the “attribute framing paradigm”).
 40. *Id.* at 158.
 41. *Id.* at 161-63.
 42. See James R. Bettman & Mita Sujan, *Effects of Framing on Evaluation of Comparable and Noncomparable Alternatives by Expert and Novice Consumers*, 14 J. CONSUMER RES. 141 (1987).
 43. See Margaret A. Neale et al., *The Framing of Negotiations: Contextual Versus Task Frames*, 39 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 228 (1987).
 44. See Vandra L. Huber et al., *Decision Bias and Personnel Selection Strategies*, 40 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 136 (1987).
 45. See William J. Qualls & Christopher P. Puto, *Organizational Climate and Decision Framing: An Integrated Approach to Analyzing Industrial Buying Decisions*, 26 J. MARKETING RES. 179 (1989).
 46. See Irwin P. Levin et al., *How Information Frame Influences Risky Decisions: Between-Subjects and Within-Subject Comparisons*, 8 J. ECON. PSYCHOL. 43 (1987).
 47. See Thomas S. Bateman & Carl P. Zeithaml, *The Psychological Context of Strategic Decisions: A Test of Relevance to Practitioners*, 10 STRATEGIC MGMT. J. 587 (1989).
 48. See Kenneth J. Dunegan, *Framing, Cognitive Modes, and Image Theory: Toward an Understanding of a Glass Half Full*, 78 J. APPLIED PSYCHOL. 491 (1993).
 49. See Patricia W. Linville et al., *AIDS Risk Perceptions and Decision Biases*, in *THE SOCIAL PSYCHOLOGY OF HIV INFECTION* 5 (John B. Pryor & Glenn D. Reeder eds., 1993).
 50. The endowment effect describes “the fact that people often demand much more to give up an object than they would be willing to pay to acquire it.” Daniel Kahneman et al., *Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias*, 5 J. ECON. PERSP. 193, 194 (1991).

Christine Jolls and Cass Sunstein's groundbreaking work, *Debiasing Through Law*, applies these behavioral insights to law and economics.⁵¹ Notably, Jolls and Sunstein argue that consumer-protection laws should aim at *debiasing*. "[I]n some cases it may be desirable to understand or to reform the substance of law—not merely the procedures by which the law is applied in an adjudicative setting—with an eye toward debiasing those who suffer from bounded rationality."⁵² They contend that if innate biases are alleviated or neutralized, consumers may make better decisions.⁵³ In the context of product-attribute framing in particular, Jolls and Sunstein suggest that the government may require that retailers "identify the potential negative consequences associated with their product . . . rather than the positive consequences associated with" it as a means of debiasing.⁵⁴

Jolls and Sunstein's succinct exposition of debiasing through framing appeals to many—including myself. Suppose that women "underestimate the value of engaging in recommended self-examinations" to detect breast cancer.⁵⁵ "If so, then framing the recommendation to self-examine in terms of losses rather than gains should increase the probability they attach to benefiting from a self-examination and thus should counteract optimism bias."⁵⁶ In other words, debiasing through framing is a way of addressing people's factually inaccurate underestimation by nudging them in the opposite direction; it alleviates natural biases (such as optimism bias) that lead people astray.

But Jolls and Sunstein's brief discussion of debiasing through framing does not set out to offer a universalizable approach for debiasing regulation. Rather, it only identifies its necessary starting point. Jolls and Sunstein recognize the problem of innate human biases that exist in the absence of any disclosure, and their solution is requiring manufacturers to provide some disclosures. But outside of their relatively uncontroversial example of breast cancer it is not clear why the government should favor one specific type of frame over another, or why agencies should even bother with understanding the psychological processes behind human thinking let alone bother with *mandating* the use of particular frames. Often, decisional environments are significantly more complex than Jolls and Sunstein's example, as is the political economy. It is in those contexts that

51. See Jolls & Sunstein, *supra* note 18 (arguing that the law should be used to steer decision makers in more rational directions).

52. *Id.* at 202.

53. *Id.* at 226.

54. *Id.* at 216.

55. *Id.* at 211.

56. *Id.*

mixed framing and regulation targeted at the way in which manufacturers *voluntarily* disclose information is a compelling solution.

B. Mixed Framing: An Understudied Phenomenon

Beyond studies on the effect of single frames, only a small number of scholars have focused on other types of framing environments—for example, *competing frames*.⁵⁷ Competing frames are framing tools that combine two contrasting ways of framing the same information. Framing studies “have neglected the fact that frames are themselves contestable[,] . . . instead restrict[ing] attention to situations in which citizens are artificially sequestered.”⁵⁸ But in thinking about real-world events, people often have to evaluate competing frames—a rally as an exercise of free speech or a threat to public safety, for example.⁵⁹ Yet the scholarship in this potentially rich sphere of research is scarce.⁶⁰ A survey of almost four hundred peer-reviewed framing articles published between 1997 and 2007 found only a dozen pieces discussing competing frames.⁶¹

This Note addresses a particular subset of competing frames: what I refer to as *mixed (attribute) frames*.⁶² Mixed frames, unlike competing frames more generally, manipulate single attributes of a product in terms of percentages. The frame components have the special property of not only competing with one another but also being mathematically and logically equivalent. Unlike competing

57. See, e.g., Porismita Borah, *Seeking More Information and Conversations: Influence of Competitive Frames and Motivated Processing*, 38 COMM. RES. 303 (2011) (including a study group in which participants were exposed to a frame portraying a KKK rally as both a free speech issue and a public-safety issue); Paul R. Brewer, *Values, Political Knowledge, and Public Opinion About Gay Rights: A Framing-Based Account*, 67 PUB. OPINION Q. 173 (2003) (exposing subjects to both the equality and morality frames on the issue of LGBT rights); Dennis Chong & James N. Druckman, *Framing Public Opinion in Competitive Democracies*, 101 AM. POL. SCI. REV. 637 (2007) (evaluating judgments of a hate rally based on a free speech and public-safety frame, as well as judgments about urban growth based on “preserv[ing] open space” and “economic costs” frames); Paul M. Sniderman & Sean M. Theriault, *The Structure of Political Argument and the Logic of Issue Framing*, in STUDIES IN PUBLIC OPINION 133 (Willem E. Saris & Paul M. Sniderman eds., 2004) (evaluating government spending based on “getting ahead” and “higher taxes” frames).

58. Sniderman & Theriault, *supra* note 57, at 141.

59. See Chong & Druckman, *supra* note 57, at 641–42.

60. See, e.g., Chong & Druckman, *supra* note 15, at 101 (“The role of multiple competing frames . . . has gone largely unexplored.”).

61. Borah, *supra* note 15, at 254, 257 (2011).

62. It is important to note that some, including Porismita Borah, unhelpfully use the terms “competing frames” and “mixed frames” as synonyms. See Borah, *supra* note 57, at 305–06.

frames, then, mixed frames do not hide the ball: they do not appeal to rhetorical tools (pulling subjects in opposing directions by emphasizing the tension between public safety and free speech, for instance). Rather, they provide all of the necessary information in impartial and neutral mathematical terms—say, 10% mortality and 90% survival. For this reason, mixed framing is a potentially powerful approach: “If attribute frames trigger similarly valenced associations, mixed frames might dampen or altogether attenuate framing effects compared to purely positive or negative frames”;⁶³ they might “push people in conflicting directions,” or elicit “a more careful evaluation . . . of competing alternatives.”⁶⁴

Surprisingly few researchers have been drawn to mixed frames, resulting in a mere handful of scholarly publications tangentially discussing mixed framing over the last forty years. What is more, studies on mixed framing have almost all been limited to the medical literature, and there is little consensus among them.⁶⁵ Results for mixed frames in the medical-treatment context have sometimes (though not always) fallen between those of purely positive and purely negative frames.⁶⁶ Studies also disagree on whether mixed frames are significantly different from single frames and whether the order of the mixed frame (positive-negative or negative-positive) has any impact on patient behavior.

The medical-treatment literature on mixed frames can be surveyed quickly. In decisions between cancer treatments based on survival rates, Annette O’Connor and her colleagues consistently found no difference resulting from the order of the mixed frames.⁶⁷ But, although one of her studies concluded that mixed frames are significantly different from negative frames—producing intermediate results that often fall in between those of purely negative and purely positive

63. Cabral A. Bigman et al., *Effective or Ineffective: Attribute Framing and the Human Papillomavirus (HPV) Vaccine*, 81S PATIENT EDUC. & COUNSELING S70, S72 (2010).

64. Dennis Chong & James N. Druckman, *Framing Theory*, 10 ANN. REV. POL. SCI. 103, 113 (2007).

65. See Bigman et al., *supra* note 63; *infra* notes 67–76 (citing six articles from the medical literature that include mixed frame conditions).

66. See *infra* note 68 and accompanying text.

67. Annette M. O’Connor, *Effects of Framing and Level of Probability on Patients’ Preferences for Cancer Chemotherapy*, 42 J. CLINICAL EPIDEMIOLOGY 119, 120 (1989) (asking a mix of healthy and sick subjects to choose between a toxic and a nontoxic cancer treatment under one of three randomly assigned framing conditions: (i) probability of surviving after chemotherapy; (ii) probability of dying; and (iii) mixed frames); Annette M. Cormier O’Connor et al., *Eliciting Preferences for Alternative Cancer Drug Treatments: The Influence of Framing, Medium, and Rater Variables*, 5 MED. DECISION MAKING 453, 460 (1985) (asking visitors to the Ontario Cancer Institute and university nursing students to respond to a treatment-choice questionnaire under one of four randomly assigned framing conditions: (i) probability of surviving the first year after treatment; (ii) probability of dying; (iii) probability of living and probability of dying; and (iv) probability of dying and probability of living).

frames⁶⁸—her other study found no intermediate results.⁶⁹ In the context of patient preferences between surgery and radiation therapy based on survival rates, Barbara McNeil, Stephen Pauker, and Amos Tversky observed that mixed frames “produced intermediate results,” approximating those of the negative frame (with potential differences based on gender).⁷⁰

Three more recent studies have perpetuated these discordant results. James Druckman offered a variation on Kahneman and Tversky’s famous avian-flu vignette⁷¹ by testing the impact of a mixed frame.⁷² He concluded that, even though the order of the mixed frame did not matter, mixed framing led to intermediate results that were statistically different from both single frames.⁷³ Cabral Bigman and colleagues examined the impact of mixed frames on the perceived effectiveness of the human papilloma virus vaccine.⁷⁴ In contrast to prior research, the order of the mixed frame seemed to have a distinct effect, and mixed frames were statistically different from positive frames.⁷⁵ Ellen Peters, Sol Hart, and Liana Fraenkel looked at preferences regarding drugs for debilitating headaches. Using a mixed frame for side effects led to intermediate results that were not significantly different from either single frame.⁷⁶

68. O’Connor et al., *supra* note 67, at 459–60.

69. O’Connor, *supra* note 67, at 123.

70. Barbara J. McNeil, Stephen G. Pauker & Amos Tversky, *On the Framing of Medical Decisions*, in *DECISION MAKING: DESCRIPTIVE, NORMATIVE, AND PRESCRIPTIVE INTERACTIONS* 562, 564–65 (David E. Bell et al. eds., 1988) (asking medical-student subjects to choose between radiotherapy and surgery under one of three randomly assigned framing conditions: (i) survival rates; (ii) mortality rates; and (iii) morality rates *and* survival rates).

71. Tversky & Kahneman, *supra* note 37, at 453 (describing the hypothetical outbreak of “an unusual Asian disease, which is expected to kill 600 people,” and observing differences in individual preferences over how to fight that disease based on the framing of the proposed cure’s effects).

72. James N. Druckman, *Evaluating Framing Effects*, 22 J. ECON. PSYCH. 91 (2001) (assigning 320 student participants from a large U.S. public university randomly to one of three conditions: (i) disease survival rate; (ii) mortality rate; and (iii) survival and mortality data).

73. *Id.* at 96–98.

74. Bigman et al., *supra* note 63, at S72–S73 (asking randomly selected subjects participating in the monthly Annenberg National Health Communication Survey to assess the vaccine’s effectiveness based on a statement which included one of five randomly assigned framing conditions: (i) effective against human papilloma virus (HPV) strains that cause 70% of cervical cancers; (ii) ineffective against HPV strains that cause 30% of cervical cancers; (iii) a control condition; (iv) effectiveness and ineffectiveness rates; and (v) ineffectiveness and effectiveness rates).

75. *Id.* at S74.

76. Ellen Peters, P. Sol Hart & Liana Fraenkel, *Informing Patients: The Influence of Numeracy, Framing, and Format of Side Effect Information on Risk Perceptions*, 2011 MED. DECISION MAKING 432,

Schematically, the disagreement in the medical literature can be summarized as follows:

TABLE 1.
MEDICAL LITERATURE ON MIXED FRAMING

Author	Intermediate?	Difference from single frames?	Order matters?
O'Connor et al. (1985)	Yes	Yes (negative only)	No
McNeil et al. (1988)	Yes	Yes (varied)	N/A
O'Connor (1989)	No	Yes (negative only)	No
Druckman (2001)	Yes	Yes (both)	No
Bigman et al. (2010)	No	Yes (positive only)	Yes
Peters et al. (2011)	Yes	No	N/A

Putting to one side their internal disagreement, these results are certainly informative. But there is reason to be skeptical of their relevance for administrative regulation of consumer goods. Beyond their failure to present a uniform picture, many medical-treatment studies do not rely on experimental procedures typical of behavioral studies of attribute framing (namely, between-subjects design). There are two other grounds for skepticism.

First, framing effects in the medical literature are either risky-choice frames or goal frames, and different medical studies involve different levels of risk. While risky-choice framing manipulates all options with different risk levels (affecting the frequency of choosing the riskier option), goal framing frames only the consequences of a particular behavior (shifting the rate of adopting a certain behavior).⁷⁷ By contrast, attribute framing manipulates a single attribute of a

433 (asking online subjects, who were asked to imagine having severe headaches, for their impressions of an analgesic whose side effects were framed under one of three randomly assigned framing conditions: (i) percentage (or frequency) of patients getting side effect; (ii) percentage (or frequency) of patients not getting the side effects; and (iii) mixed frame).

77. Levin et al., *supra* note 26, at 181.

product by labeling it positively or negatively (for example, ground beef labeled 75% lean or 25% fat), which affects that product's attractiveness rating.⁷⁸

Second, framing effects in the medical literature and those in consumer products are explained by an appeal to different types of biases. Because they are often connected with emotionally salient outcomes (such as probability of death or pain), negative frames in medical studies are likely to loom larger than negative frames in food labeling. And, depending on the outcome at stake (discomfort, pain, death), the emotions invoked will be stronger or weaker. Indeed, while risky-choice framing is usually explained by an appeal to risk aversion or risk seeking,⁷⁹ goal framing relies on the endowment effect and loss aversion.⁸⁰ The same cannot be said for a distinction between 5% fat and 95% fat-free yogurt. Attribute framing works differently. Unlike the other types of framing, it is “likely to influence the encoding and representation of information in associative memory” – causing, for example, positive frames to evoke favorable associations in the consumer's mind.⁸¹

Outside of the medical literature, in the realm of consumer protection, only one study has tangentially investigated the “unexplored topic” of mixed framing.⁸² In that experiment, conducted thirty years ago with the help of a cohort of college students, Richard Johnson found that mixed frames did *not* lead to intermediate results,⁸³ that mixed frames approximated positive frames,⁸⁴ and that the order of the mixed frame (negative-positive or positive-negative) had no impact.⁸⁵ Surprisingly, until now, no further empirical study of the effect of mixed framing on consumer behavior had been conducted.

Johnson's limited set of thirty-year-old data is of little help for modern-day consumer regulations. For starters, the study predated *all* regulations of product labels – and therefore subjects were not accustomed to seeing standardized food labels or percentage statements on their products.⁸⁶ Moreover, Johnson's conclu-

78. *Id.* at 159, 181.

79. *Id.* at 152–58.

80. *Id.* at 168, 177; see also Daniel Kahneman, Jack L. Knetsch & Richard H. Thaler, *Experimental Tests of the Endowment Effect and the Coase Theorem*, 98 J. POL. ECON. 1325, 1326–29 (1990) (defining the endowment effect as a manifestation of loss aversion).

81. Levin et al., *supra* note 26, at 164.

82. Johnson, *supra* note 17, at 73 (looking at how consumers “evaluate ground beef that is described as both 20% fat and 80% lean”).

83. *Id.* at 73–76.

84. *Id.* at 76.

85. *Id.* at 77.

86. See *infra* Section II.A.

sions on mixed framing were based on a small sample of sixty college students.⁸⁷ And, most importantly, Johnson was not interested in drawing any policy recommendations from his data and provided a very cursory discussion of mixed framing.⁸⁸ To inform mixed-framing regulatory reforms, more work is needed.

In sum, choices may often be constructed, edited, and framed. But, as Irwin Levin and his coauthors have admonished, not all frames are created equal.⁸⁹ In other words, the reasons why risky-choice frames and goal frames in medical literature and attribute frames in consumer-products regulations “cannot and should not be treated the same” are “apparent” — and “[n]ot recognizing the distinctions leads to unwarranted comparisons.”⁹⁰ Because there is a lack of agreement on the nature and impact of mixed frames, and because framing effects in the consumer-protection context differ from those in the medical context, a thorough study of mixed frames in consumer products is warranted. Part II will do just that, setting the foundations for this Note’s claim that legal scholars often overstate the paternalism/libertarianism dichotomy in consumer protection.

II. MIXED FRAMING: A CASE STUDY

Behavioral economists may suggest a host of biases to explain how different attribute frames cause discrepant results. But the objective of this Note is not to focus on explaining consumer behavior. Explanations aside, people do behave differently in response to different but complementary frames, as Part I established.

Given that, what should administrative agencies do? The economic costs of asymmetric information are well known,⁹¹ and thus product labeling may enhance economic efficiency.⁹² Because consistency in the market of goods increases information accuracy and allows manufacturers to differentiate themselves from one another through easy labeling comparisons, the government is

87. Johnson, *supra* note 17, at 73-74 (explaining how the 180 students that participated in this study were randomly divided into six groups of thirty students each, and only two of those groups — a control group and a study group — were exposed to mixed framing).

88. *Id.* at 76-77.

89. See Levin et al., *supra* note 26.

90. *Id.* at 178.

91. See generally George A. Akerloff, *The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*, 84 Q.J. ECON. 488 (1970) (explaining the importance of distinguishing good products from bad ones in structuring economic institutions).

92. See Elise Golan et al., *Economics of Food Labeling*, 24 J. CONSUMER POL’Y 117, 127 (2001) (“Labeling decisions may enhance economic efficiency by helping consumers to target expenditures toward products they most want.”).

often called upon to regulate.⁹³ And the argument that agencies should choose the framing that allows consumers to make “rational” choices and points them in the direction of their true (utility-maximizing) preference is certainly appealing.

This debate is not an easy one to settle. Traditional rational-choice theory sees no harm in the fact that, “[a]bsent regulatory barriers, sellers will tell consumers about product attributes that consumers desire,”⁹⁴ hoping to increase profits and extract consumer surplus. But behavioral-economics scholars have highlighted the need for new regulatory strategies that take into account consumer behavior.⁹⁵ Thus far, the literature has been unable to move past the paternalism/libertarianism dichotomy and offer politically feasible regulatory proposals.⁹⁶ This is because behavioral economics has presumed the inevitability of paternalism: there is no such thing as a neutral way of conveying information.⁹⁷ And, in turn, rational-choice theory has criticized those regulations as infringements on consumer autonomy.⁹⁸

This Part begins to sketch a rejoinder: in regulating how the market freely chooses to disclose information, agencies can promulgate *neutral* information through disclosure requirements that do not infringe on consumers’ autonomy by nudging them in a particular direction. Next, I map out this argument by noting some of the analytic attributes of a regulatory approach that are observable in the current administrative state but have gone unnoticed by regulators and scholars alike. Mixed frames minimize the distortive and volatile impact of framing effects (aimed at extracting consumer surplus) and enhance consumer autonomy (by maximizing information completeness), without forcing the gov-

93. See Brian E. Roe et al., *The Economics of Voluntary Versus Mandatory Labels*, 6 ANN. REV. RESOURCE ECON. 407, 409 (2014) (“[P]roduct labeling is an increasingly popular tool of regulators.”).

94. J. Howard Beales III, *Health Related Claims, the Market for Information, and the First Amendment*, 21 HEALTH MATRIX 7, 9-10 (2011).

95. See, e.g., Jon D. Hanson & Douglas A. Kysar, *Taking Behavioralism Seriously: A Response to Market Manipulation*, 6 ROGER WILLIAMS U. L. REV. 259 (2000) (suggesting an enterprise-liability approach for manufacturers who manipulate consumers into purchasing and using hazardous products); Lauren E. Willis, *Performance-Based Consumer Law*, 82 U. CHI. L. REV. 1309, 1312 (2015) (proposing a performance-based approach to consumer law under which firms would be penalized for failing to meet consumer-expectation benchmarks and rewarded for exceeding them).

96. See generally Sunstein, *supra* note 12 (discussing autonomy-based and welfarist objections to paternalism).

97. See, e.g., Lichtenberg, *supra* note 10, at 667-69.

98. See, e.g., REBONATO, *supra* note 11, at 200-05; WHITE, *supra* note 11, at 81-102.

ernment to take a normative position on which single frame is preferable. Mixed frames, in sum, foster more informed, autonomous decision-making.

Rather than discussing the benefits of mixed framing and the shortcomings of single framing in the abstract, or conjecturing about the dual-pricing scheme discussed in *Expressions Hair Design*,⁹⁹ I begin from a concrete case study: percent fat-free regulations. For decades, federal food-safety regulators have mandated mixed frames for certain meat products whenever manufacturers wish to present fat-content information at all. This understudied phenomenon serves as a jumping-off point for this Note's normative discussion in Part III.

Section II.A provides the first overview of the little-known history of governmental regulation of percent fat-free and percent lean statements. From this history, three sets of considerations emerge: concerns over consumer deception, administrative interests in disclosing accurate information, and industry customs. The interaction of these considerations reveals the inherent problems of single framing. The next Part, Part III, develops out of the original behavioral survey on mixed framing discussed in Section II.B and advances an argument for mixed-framing regulation.

A. The History of Agency Regulation of Percent Fat-Free Statements

During the 1970s, the Food Safety and Inspection Service (FSIS) and the Food and Drug Administration (FDA)¹⁰⁰ were largely opposed to positive attribute frames. Many manufacturers sought to include statements about the low-fat content of their products. At the time, “consumer interest in diet as a way to improve health was high,”¹⁰¹ and “[f]ood manufacturers were eager to market food products to take advantage of this interest.”¹⁰²

99. See *supra* notes 2-9 and accompanying text (discussing the dispute in *Expressions Hair Design* and the certification to the New York Court of Appeals regarding the legality of mixed-framing and dual-pricing schemes).

100. As many as fifteen federal agencies administer at least thirty statutes relating to food safety. RENÉE JOHNSON, CONG. RESEARCH SERV., RS22600, THE FEDERAL FOOD SAFETY SYSTEM: A PRIMER 1 (2016). But the two primary federal regulatory bodies are the FDA, within the U.S. Department of Health and Human Services, and the FSIS, in the U.S. Department of Agriculture. Before 1940, the FDA and FSIS were housed in the same department. See Richard A. Merrill & Jeffrey K. Francer, *Organizing Federal Food Safety Regulation*, 31 SETON HALL L. REV. 61, 82-83 (2011). Today, while the FSIS regulates meat and meat products, the FDA has jurisdiction over all other foods. See JOHNSON, *supra*, at 2.

101. Christine Lewis Taylor & Virginia L. Wilkening, *How the Nutrition Food Label Was Developed, Part 1: The Nutrition Facts Panel*, 108 J. AM. DIETETIC ASS'N 437, 437 (2008) (describing the historical context of nutrition labeling in the 1970s and 1980s).

102. *Id.*

As consensus that limiting dietary fat intake was beneficial continued to build, mixed frames were introduced in the regulation of some food products.¹⁰³ At first, mixed frames were prescribed through guidance documents made available in connection with the FSIS's label-approval system. As early as 1982, the FSIS published a memorandum—seemingly covering all kinds of food products—announcing that “[p]ercent fat free statements, e.g., ‘95% Fat Free’, are acceptable on product labels if the label also bears a positive declaration of the product’s fat content, e.g., ‘contains 5% fat.’”¹⁰⁴ That is, percentage fat-free statements could be included only as part of a *mixed frame*. As the FSIS administrator explained, this policy was “designed to give consumers as much useful information as possible on the fat content of the product” and “to assure that labels inform consumers *exactly* what the claim means.”¹⁰⁵

In November 1991, both the FDA and FSIS began considering newly proposed rules on percentage statements of fat contents—the FSIS for meat products only¹⁰⁶ and the FDA for all other food products,¹⁰⁷ in line with their respective jurisdictions.¹⁰⁸ The FDA, believing that “the actual amount of fat in a food is a material fact when a ‘___ percent fat-free’ claim is made,” proposed a rule “requir[ing] that the disclosure of the amount of total fat in a serving of food

103. See, e.g., DEP’T OF AGRIC. & DEP’T OF HEALTH & HUMAN SERVS., NUTRITION AND YOUR HEALTH, DIETARY GUIDELINES FOR AMERICANS 10–12 (1980); DEP’T OF HEALTH, EDUC. & WELFARE, HEALTHY PEOPLE: THE SURGEON GENERAL’S REPORT ON HEALTH PROMOTION AND DISEASE PREVENTION (1979); *Lowering Blood Cholesterol to Prevent Heart Disease*, NAT’L INSTITUTES HEALTH (Dec. 10–12, 1984), <https://consensus.nih.gov/1984/1984cholesterol047html.htm> [<https://perma.cc/9VP8-X9XU>].

104. Memorandum from Standards & Labeling Div., Food Safety & Inspection Serv., to Policy Book Subscribers 46 (Jan. 10, 1989), <https://ia800205.us.archive.org/8/items/CAT87890231/CAT87890231.pdf> [<https://perma.cc/G9WT-KYCY>] [hereinafter FSIS Memorandum] (referring to the earlier 1982 memorandum).

105. Donald L. Houston, *USDA’s Regulation of Food Claims*, 40 FOOD DRUG COSM. L.J. 238, 242 (1985) (emphasis added). In 1989, the FSIS published another policy memorandum outlining that any meat or poultry product described as “lean” or “low fat” must also disclose “the actual amount of fat.” FSIS Memorandum, *supra* note 104, at 43. In the case of ground meat, moreover, “the actual fat percentage and the lean percentage must either accompany the claim [“lean” or “extra lean”] or be referenced by means of an asterisk and placed elsewhere on the principal display panel”—as in, for example, “Lean Ground Beef, Contain 80 percent Lean and 20 percent Fat.” *Id.* at 44.

106. See Nutrition Labeling of Meat and Poultry Products, 56 Fed. Reg. 60302, 60302 (proposed Nov. 27, 1991) (to be codified at 9 C.F.R. pts. 317, 320, 381).

107. See Food Labeling: Nutrient Content Claims, General Principles, Petitions, Definition of Terms, 56 Fed. Reg. 60421, 60465 (proposed Nov. 27, 1991).

108. See JOHNSON, *supra* note 100, at app. A (listing the statutes that define the jurisdiction of federal agencies over food-safety regulation).

appear in immediate proximity to a ‘___ percent fat-free’ claim.”¹⁰⁹ Though originally not contained in the FSIS proposed rule, the Agency “fully agree[d] with [the] FDA’s rationale,” and adopted the FDA’s approach.¹¹⁰ In other words, at the notice stage, both the FDA and FSIS were leaning toward mixed framing.

Coordination between the FDA and FSIS was limited to the proposed rule-makings, and the final rules diverged. On the one hand, the FDA abandoned part of its original mixed-framing proposal. It promulgated a requirement that any percent fat-free claim be limited to products that meet the “low fat” definition.¹¹¹ On the other hand, the FSIS adopted the FDA’s original mixed-framing approach.¹¹² The FSIS prohibited percent fat-free claims “in those circumstances in which it would be misleading” — that is, in all cases in which the product does not meet the definition of “low fat” *and* does not disclose the amount of total fat.¹¹³

The FSIS rule had “unintended consequence[s]” on ground-beef products,¹¹⁴ which went unaddressed for decades. Because ground meat rarely meets the “low fat” criteria, it was “virtually precluded” from using percent lean statements under the 1993 rule.¹¹⁵ Yet, manufacturers and retailers had been using “‘___percent lean’/‘___percent fat’” labels ever since 1973, when the U.S. Department of Agriculture developed the Uniform Retail Meat Identity Standards.¹¹⁶ Notwithstanding the lobbying of trade associations, attempts at addressing the ground-meat labeling problem stalled well into the 2000s.¹¹⁷

109. Food Labeling: “Cholesterol Free,” “Low Cholesterol,” and “___ Percent Fat Free” Claims, 56 Fed. Reg. 60507, 60511 (proposed Nov. 27, 1991).

110. Nutrition Labeling of Meat and Poultry Products, 56 Fed. Reg. at 60318.

111. Food Labeling: Nutrient Content Claims, General Principles, Petitions, Definition of Terms; Definitions of Nutrient Content Claims for the Fat, Fatty Acid, and Cholesterol Content of Food, 58 Fed. Reg. 2302, 2331 (Jan. 6, 1993) (to be codified at 21 C.F.R. pts. 5, 101).

112. Nutrition Labeling of Meat and Poultry Products, 58 Fed. Reg. 632, 651 (Jan. 6, 1993) (codified as amended at 9 C.F.R. §§ 317.362, 381.462 (2018)).

113. *Id.* See generally COMM. ON THE NUTRITION COMPONENTS OF FOOD LABELING, NUTRITION LABELING: ISSUES AND DIRECTIONS FOR THE 1990S, at 171 (Donna V. Porter & Robert O. Earl eds., 1990) (providing an overview of the factors leading to the FDA’s labeling practices in the 1990s).

114. Nutrition Labeling of Ground Beef and Hamburger, 59 Fed. Reg. 26916, 26918 (proposed May 24, 1994).

115. *Id.* at 26917.

116. *Id.*

117. See, e.g., Nutrition Labeling of Ground Beef and Hamburger: Extension of Compliance Date, 59 Fed. Reg. 39941 (Aug. 5, 1994) (extending the compliance date indefinitely); Nutrition Labeling of Ground Beef and Hamburger, 59 Fed. Reg. 34396 (July 5, 1994) (extending the

Eventually, in 2010, the FSIS addressed ground-meat labeling by promulgating a mixed-framing regulation. Although the FDA's regulations do not allow "percent lean/percent fat" statements,¹¹⁸ the FSIS decided to permit mixed frames for all ground beef and poultry products, even where they do not meet the "low fat" definition.¹¹⁹ The Agency was convinced that "percent lean/percent fat" claims (or vice versa) would provide consumers with valuable information, even though commenters offered conflicting empirical and theoretical evidence as to whether percent lean claims would be misleading.¹²⁰

In this turbulent, three-decade-long process of formal rulemaking, mixed frames failed to take root as a standard tool of the regulatory state. Instead, they remained a rare exception in food labeling, and they received virtually no attention from either agencies or legal scholars. But the potential impact of mixed framing on novel approaches to policy making, and the questions it raises as a way out of the paternalism/libertarianism dichotomy, make this lack of interest puzzling. And, to boot, the FDA's assumptions in rejecting mixed frames are subject to a number of critiques.

Part III, with the aid of empirical data analyzed in Section II.B, will tackle each objection to the current FDA approach and systematically engage with the analytic and normative attributes of mixed frames. That discussion will take the form of a policy proposal, showing why food regulators should embrace mixed frames as a tool for effective consumer-oriented regulation. But first, I describe my original behavioral survey to demonstrate the likely effects of mixed framing in the food-labeling sphere.

B. An Original Behavioral Survey: Attribute Framing and Percentage Statements

Throughout the 1980s, a series of behavioral studies described in this Section painstakingly proved that consumers react to percent fat-free labels differently

comment window until August 22, 1994). The Agency didn't act on the thousands of comments it received until two days before the inauguration of President Bush in 2001, when it issued a new proposal allowing percent fat-free claims as long as a statement of the fat percentage was also displayed on the label. Nutrition Labeling of Ground or Chopped Meat and Poultry Products and Single-Ingredient Products, 66 Fed. Reg. 4970, 4981 (Jan. 18, 2001).

118. See Nutrition Labeling of Ground or Chopped Meat and Poultry Products and Single-Ingredient Products, 66 Fed. Reg. at 4981.

119. See Nutrition Labeling of Single-Ingredient Products and Ground or Chopped Meat and Poultry Products, 75 Fed. Reg. 82148, 82167 (proposed Dec. 29, 2010) (to be codified at 9 C.F.R. § 317.362(f)).

120. See *id.* at 82157.

than they do to standalone percent fat claims. Yet, regulators largely ignored those findings. Instead, in those years, they put into place regulatory schemes that were (and remain) internally inconsistent. From the history of attribute framing for percent fat statements, mixed frames emerge as the rare exception in a system that otherwise gives ample freedom to manufacturers and producers.

A series of four studies in the 1980s—before food labels were regulated or percentage claims had become widespread—focused on the impact of attribute framing on consumer choices. In those studies, perceptions of the quality of ground beef changed based on whether the meat was described as 75% lean or 25% fat.¹²¹ Subjects rated a sample of ground beef as more flavorful and less greasy when it was labeled in terms of lean percentage rather than in terms of fat percentage, even after tasting it.¹²² Only one study tangentially looked at the “unexplored topic” of how consumers “evaluate ground beef that is described as both 20% fat and 80% lean.”¹²³ Surprisingly, no further empirical study of the impact of mixed framing on consumer behavior appears to have been conducted until this day.

In June 2017, on the thirtieth anniversary of the first and only experiment on the impact of mixed frames in consumer products, I ran an empirical study through Amazon Mechanical Turk. Study participants were divided into four randomized groups, each exposed to a different kind of framing. Each group had a sample size of about 200 respondents, for a total of around 800 participants, drawn from the general U.S. adult population.

121. See Johnson, *supra* note 17, at 77 (confirming the prediction that “[t]he manner in which the quality information was presented, i.e., whether it was framed in terms of fat or lean . . . affect[ed] responses”); Irwin P. Levin, *Associative Effects of Information Framing*, 25 BULL. PSYCHONOMIC SOC’Y 85, 86 (1987) (“Ground beef that was said to be 75% lean was rated as leaner, of higher quality, less greasy, and better tasting than beef that was said to be 25% fat.”); Irwin P. Levin & Gary J. Gaeth, *How Consumers Are Affected by the Framing of Attribute Information Before and After Consuming the Product*, 15 J. CONSUMER RES. 374, 376 (1988) (“[T]he framing effect [in terms of fat or lean percentages] tended to be largest when subjects did not actually taste the meat, less large when subjects tasted the meat after being given the label, and smallest when subjects tasted the meat before being given the label.”); Irwin P. Levin et al., *Framing Effects in Judgment Tasks with Varying Amounts of Information*, 36 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 362, 366 (1985) (conducting a study where “[s]ubjects were asked to rate their personal satisfaction with various purchases of ground beef based on the price of the meat and its quality” and finding a framing effect depending on whether quality was given in terms of percentage lean or percentage fat).

122. Levin & Gaeth, *supra* note 121, at 376.

123. Johnson, *supra* note 17, at 73.

Each participant was paid to answer a short online survey.¹²⁴ The survey included five questions about the respondent's likelihood of purchasing five different products solely based on the information provided. Using a Likert scale,¹²⁵ respondents estimated their likelihood of purchasing ground beef, yogurt, and soup.¹²⁶ Additionally, two nonfood categories were included as controls: gasoline (with a cash discount as the positive frame and credit-card surcharge as the negative one) and T-shirts (synthetic versus natural fibers). Because of the heavily affect-laden characteristics of the gasoline frames, that control group was expected to exhibit very different behaviors depending on the framing used. In contrast, for T-shirts, the hypothesis was that framing effects would play a minor role in consumer preferences because, generally, any negative or positive valence associated with a fiber depends on its intended use.

All of the questions asked of each particular participant group were randomly ordered, but they were framed in the same way¹²⁷ — employing either (i) purely negative (20% fat ground beef), (ii) mixed negative-positive (20% fat and 80% fat-free), (iii) mixed positive-negative (80% fat-free and 20% fat), or (iv) purely positive (80% fat-free) frames. Limited demographic data, including income, gender, employment status, and purchasing habits, were also collected.

Consistent with decades of literature, I expected that, when presented with a positive frame that primed an affect-laden characteristic of a product, a consumer would be more likely to purchase that product than when presented with a purely negative frame. Indeed, there was a statistically significant difference between the positive framing and the negative framing for ground beef ($t = -2.17, p < 0.05$) and gasoline ($t = -8.95, p < 0.001$). Soup also had a significant difference ($t = 2.60, p < 0.01$), although framing effects operated in an unexpected direction — a point I will return to shortly. Neither the T-shirts group nor

124. Each participant was paid \$0.40 for her time. The average time of completion was 2:29 minutes, which converts to \$9.60/hour. Thanks to the Oscar M. Ruebhausen Fund for covering the costs associated with this survey.

125. A Likert scale is an ordered scale from which respondents choose one option that best aligns with their response. Participants rated their responses by dragging a cursor across a continuous scale of 0 to 100. The scale had both numerical and verbal descriptors. In terms of numerical descriptors, this was an 11-point Likert scale (0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100); in terms of verbal descriptors, this was a 5-point scale (Extremely Unlikely, between 0 and 10; Unlikely, between 20 and 30; Neither Unlikely nor Likely, at 50; Likely, between 70 and 80; Extremely Likely, between 90 and 100).

126. Respondents were asked to disclose whether they are vegetarian, vegan, pescatarian, lactose intolerant, or allergic to food products. If they answered in the affirmative, the following was displayed: "For the purpose of this survey, please assume that you are making purchases for a close relative with no dietary restrictions."

127. All questions were worded in an identical fashion, with the exception of the product being tested. For example, in the case of ground beef: "Assume that you would like to buy ground beef. Solely based on the information provided below, how likely is it that you will buy it?"

the yogurt group produced statistically significant results, with all framing options eliciting statistically identical behaviors. In sum, in three out of five study groups, positive frames elicited very different responses from those resulting from negative frames.

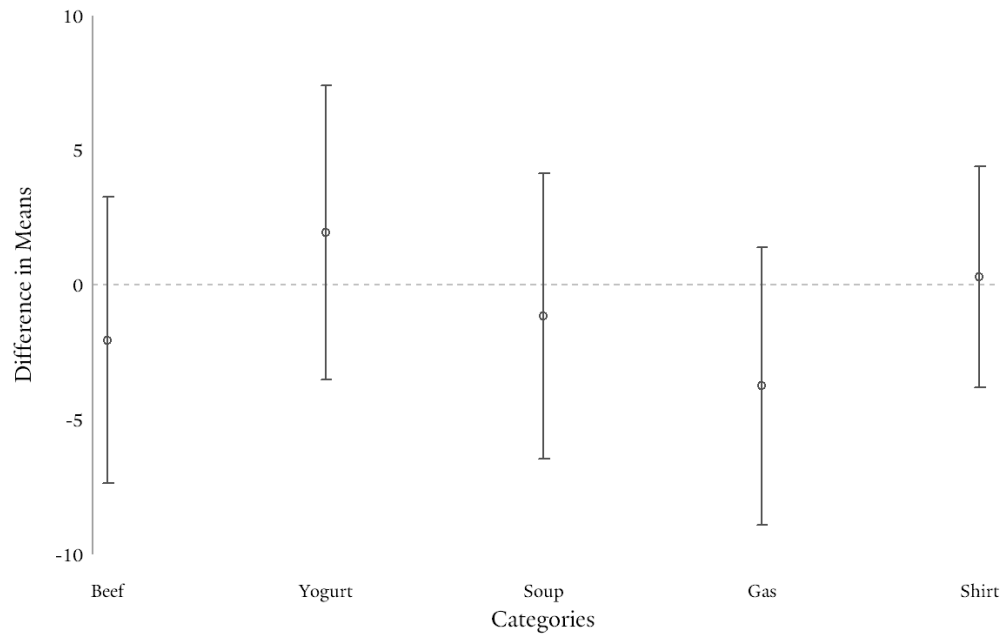
The core hypotheses in my study addressed the disagreement in the mixed-framing scholarship. In contrast to the more recent medical literature, the order of the frames (negative-positive or positive-negative) was expected to have no statistically significant impact and lead to statistically identical outcomes. If this assumption proved correct, I hypothesized that mixed frames (as a combined variable) would lead to intermediate results—that is, results in between the means of purely positive and purely negative frames. These results were expected to differ markedly from both negative and positive single frames.

As predicted, Figure 1 shows that the means of the negative-positive frame and the positive-negative frame were statistically identical across all five study groups. Statistically speaking, mixed frames were indistinguishable. Because of this finding, the two mixed-frame categories were pooled into one variable.

Figure 2 compares that mixed-frame variable to both negative and positive frames. Both negative and positive frames generally differed from mixed frames—which resulted in intermediate responses. In particular, the negative frame was significantly different from the mixed frames for ground beef ($t = -2.16, p < 0.04$) and gasoline ($t = -6.71, p < 0.001$). The positive frame significantly differed from the mixed frame for soup ($t = -2.24, p < 0.025$) and gasoline ($t = -2.49, p < 0.015$).

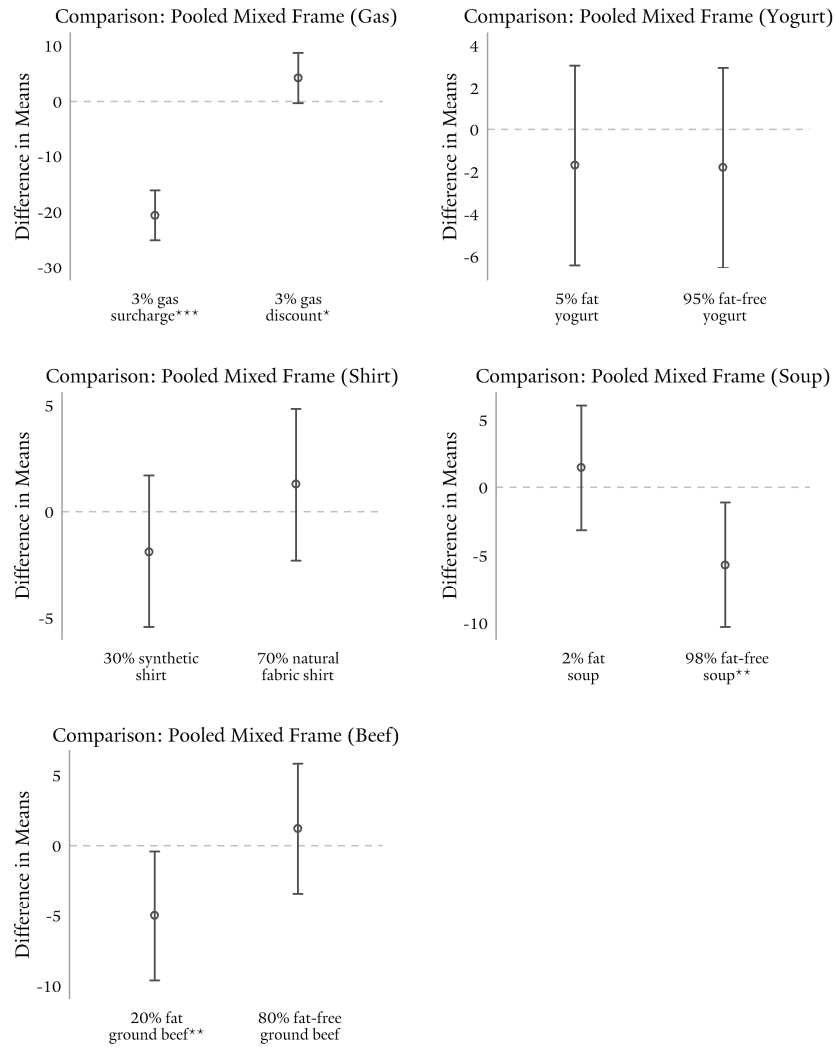
In sum, mixed frames in three out of five control groups were statistically different from the respective single frames. This conclusion elucidates the relationship between mixed frames and single frames: generally, mixed frames differ from either kind of single frame, and they produce intermediate responses.

FIGURE 1.
DIFFERENCES IN MEANS BETWEEN MIXED FRAMES



Note. All responses are based on a Likert scale indicating propensity to buy. Possible responses ranged from 0 (extremely unlikely) to 100 (extremely likely). Each vertical bar (a 95% confidence interval) represents the difference in means between the positive-negative frame and the negative-positive frame. Across all categories, the confidence intervals contain zero, which means that there are no statistically significant differences between the means of the mixed (negative-positive and positive-negative) frames.

FIGURE 2.
DIFFERENCES IN THE MEANS BETWEEN SINGLE FRAMES AND MIXED FRAMES



Note. All responses are based on a Likert scale indicating propensity to buy. Possible responses ranged from 0 (extremely unlikely) to 100 (extremely likely). Each vertical bar (a 95% confidence interval) represents the difference in means between a single frame and the corresponding mixed frame (pooled variable). If the interval contains zero, the difference is not statistically significant—meaning that the means of the single frame and the mixed frame are indistinguishable. Whenever the confidence interval does *not* contain zero, the mean of the single frame and the mean of the mixed frame are significantly different. * indicates significance at the 10% level, ** indicates the 5% level, and *** indicates the 1% level.

A few brief additional comments on the results are warranted. Contrary to the general literature on framing effects,¹²⁸ consumer behavior in response to the framing of soup attributes was flipped: respondents preferred soup under the “negative” frame describing the fat percentage. The percent fat frame for soup thus behaves like a positive frame. One possibility is that the fat content of soup might be a positive, affect-laden characteristic for consumers. When consumers buy a product less frequently, as in the case of soup, they might be more inclined to buy items that they believe to be tastier (as in, fattier). Or, perhaps, because canned soups vary in thickness, fat content might operate as a proxy for thicker soups. Considerations of this nature are outside the scope of my Note’s research. What matters here is not the direction of the framing effect (or its explanation). Rather, what matters is that the familiar trend holds true: single frames polarize preferences, and mixed frames fall in the middle.

Moreover, and perhaps less surprisingly, framing effects do not always appear. Take the yogurt and T-shirts groups as examples. Whether single or mixed, the frames were statistically indistinguishable from one another. For the T-shirts control group, this outcome was expected: that study group had been included exactly with the expectation that framing effects would be minimal. For the yogurt group, the results were somewhat more surprising, although there might be a number of explanations for this outcome. Most simply, consumers may not have strong preferences about the fat content of their yogurt. But again, providing explanations for consumer behavior is not the goal of this Note. For whatever reason, however the fat content of yogurt is framed consumer preferences are not significantly affected. This is consistent with the theory of this Note: mixed frames provide neutral information. When framing effects are nonexistent, mixed frames are no better or worse than single frames. But when framing effects matter, mixed frames are the most neutral option for providing complete disclosures.

Returning to this Note’s analysis, it is important to draw two nonstatistical conclusions from these empirical data. *First*, human behavior is volatile. It is the product of complex interactions between personal beliefs and framing choices, in addition to attitudes toward the product itself. *Second*, and most importantly, single frames allow consumers to conceive of the same object in different ways. In contrast, mixed frames elicit less volatile results because they provide accurate, neutral, and complete information. That information diminishes factual misconceptions, which likely cause the polarized results observed in single framing study groups where framing effects occur.

128. See *supra* Section I.A (surveying the framing literature).

III. DEBIASING THROUGH MIXED FRAMES: A NEW APPROACH TO REGULATING FOOD PRODUCTS

Behavioral economists have long agreed that, due to a number of biases, framing affects behavior. Describing ground beef as either 75% fat-free (positive frame) or 25% fat (negative frame) will elicit different reactions from consumers. But behavioral economics has largely ignored mixed frames—the description of ground beef as “75% fat-free/25% fat” (or vice versa).¹²⁹ Yet, the latter type of framing has most recently been front and center in *Expressions Hair Design*.¹³⁰ Against this backdrop, the current regulatory scheme outlined in Section II.A—one that largely permits single frames and generally ignores mixed framing—seems puzzling.

Section III.A proposes that regulators adopt mixed framing as a way to maximize both information disclosure and consumer autonomy. Section III.B highlights the absence of any compelling reason for the current state of affairs in food-safety regulation—which features mixed framing as a rare exception. Finally, Section III.C draws some preliminary conclusions about the goals of consumer regulation and how they can best be advanced. Throughout this Part, I make the case for a politically feasible regulatory approach to disclosure requirements: whenever manufacturers freely choose to disclose information in percentage terms, agencies should mandate that their labels include mixed frames. Part IV will then defend this regulatory approach from two probable legal challenges.

A. A Policy Proposal: Mixed Frames as the Solution

Here is the elevator pitch: regulators should allow manufacturers and retailers to advertise their products’ attributes in percentage terms *only if* they do so through a mixed frame. In other words, when manufacturers choose to use a single frame on their labels, they are required to also disclose the complementary frame (thus creating a mixed frame). As has been the case with ground beef for decades, other products too should be advertised through mixed frames. Focusing on the example of food, a yogurt label would state: 95% fat-free and 5% fat. Soup: 98% fat-free and 2% fat. Milk: 99% fat-free and 1% fat. And so on. That is because, as behavioral economists have agreed for decades, single frames are

129. See, e.g., Levin & Gaeth, *supra* note 121, at 376 (describing a framing experiment without mixed frames).

130. See *supra* notes 3-14 and accompanying text (discussing the dispute in *Expressions Hair Design*).

volatile and lead to polarized results. And picking one frame over the other would require the government to take a normative position that is often irrelevant to achieving the goals of regulation – and one that would be unnecessarily controversial at that.

While some endorse libertarianism in allowing *any* frame that the market freely provides, others want agencies to be more paternalistic.¹³¹ With mixed frames, regulators can have their cake and eat it too. Manufacturers will not be forced to disclose new information prominently on their packaging; rather, they will be free to print whatever single frame they chose, if any at all – so long as they also include the other complementary and mathematically equivalent frame right next to it, creating a mixed frame. And, at least insofar as the internal order of the mixed frame does not have a statistically significant impact on consumer preferences,¹³² manufacturers should remain free to choose the order in which to provide that information (positive-negative or negative-positive).¹³³ But, through mixed framing, the volatility and misleading nature of single-frame product labeling would be neutralized. Mixed framing provides a more neutral disclosure mechanism that allows consumers to fully understand the information provided.

Normatively, from the perspective of both paternalism and laissez-faire libertarianism, a mixed-framing approach is preferable to a single-frame approach. Mixed framing best captures the benefits of both sides of the aisle. It appeals to laissez-faire libertarians by enhancing consumer autonomy. At the same time, it appeals to paternalistic consumer-protection advocates by ensuring that consumers see the flip side of the coin – the attribute frame that manufacturers currently try to hide. Finally, mixed framing also minimizes the costs of paternalistic and laissez-faire approaches that tend to polarize consumer behavior in opposing directions.¹³⁴

131. Cf. Jolls & Sunstein, *supra* note 18, at 216 (suggesting that manufacturers should be required to “identify the potential negative consequences associated with their product . . . rather than the positive consequences associated with” it as a way of debiasing).

132. See *supra* Section II.B (outlining the results of my original behavioral study, showing no statistically significant difference between the positive-negative and the negative-positive frames across five study groups).

133. Notably, my recommendation might be different if future data showed that the internal order of mixed frames mattered. For instance, if negative-positive frames elicited reactions similar to those of negative frames, but positive-negative frames had intermediate results, then I would likely suggest requiring positive-negative frames. Because my data strongly support the absence of any statistical difference between positive-negative and negative-positive frames, however, I will refrain from further speculating about counterfactuals.

134. See *supra* Section II.B (showing the effects of positive and negative frames).

Mixed framing, in sum, is a minimally intrusive regulatory tool to foster more informed, autonomous decision-making through disclosure requirements—arguably the goal of libertarians and paternalists alike. *First*, by mandating a mixed frame, consumers are empowered to understand—on their own terms and through the lenses of their own affect-laden cognitions—the complete characteristics of a product. Mixed frames strengthen consumers’ ability to make informed decisions, allowing them to rationally interpret language in light of their personal beliefs, emotions, and preferences. *Second*, as further discussed in Section IV.B, mixed framing does not package information in a way that influences consumer choices in a certain direction; rather, it promulgates information in the most neutral way possible (by offering both sides of the coin) with the goal of reducing the grounds for factual misconceptions.

In fact, mixed frames are the archetype of neutral information. Mixed framing discloses information by “[n]ot supporting or helping either side in a conflict” and “[h]aving no strongly marked . . . characteristics or features.”¹³⁵ Indeed, mixed framing presents both sides of the framing “conflict.” It counteracts the effects of the manufacturer’s preferred frame by including a complementary and logically identical frame. In doing so, mixed framing neutralizes the volatility of single framing by packaging the information in a format that allows consumers to fully internalize the disclosure. And it is this volatility—as shown empirically in Part II—combined with the partial nature of the information conveyed through single frames that signals how uninformed and inconsistent decision-making might be afoot.

This is the normative foundation of mixed frames: a path out of the traditional partisan debate between rational-choice libertarianism and behavioral-economics paternalism. To be sure, some food regulators have cursorily considered the potential of mixed framing in the past.¹³⁶ But they have done so unsatisfactorily and without success. The next Section explains how, even then, there was no persuasive reason for failing to adopt mixed framing in food-labeling rules. Bolstered by my new empirical work, there is even less of a reason to refuse to do so now.

B. Shortcomings in the Current Food-Safety Regulatory Scheme

As outlined in Section II.A, at the end of a three-decades-long process of formal rulemaking, the preference for mixed frames was largely lost. A 1982

¹³⁵. *Neutral*, OXFORD LIVING DICTIONARIES: ENG. (2018), <https://en.oxforddictionaries.com/definition/neutral> [<https://perma.cc/7QA9-W5DE>].

¹³⁶. See *supra* Section II.A (discussing the history of percent fat-free labels).

guidance promulgated by the FSIS required that “[p]ercent fat free statements, e.g., ‘95% Fat-Free’, . . . [must] also bear[] a positive declaration of the product’s fat content, e.g., ‘contains 5% fat.’”¹³⁷ That sweeping approach was never incorporated into a formal rule.¹³⁸ In the end, the FSIS preserved mixed frames only for a very narrow category of meat products.¹³⁹ And the FDA abandoned mixed frames entirely.¹⁴⁰ Mixed frames became a forgotten unicorn of the regulatory state.

The FDA’s reasoning in rejecting mixed frames was simple on its face, yet flawed. Because (i) a product labeled as “percent fat-free” must also meet the “low fat” definition¹⁴¹ and (ii) percent fat-free claims are accompanied by a statement referring consumers to the Nutrition Facts label, which includes the total amount of fat in the product, no further disclosure was needed.¹⁴² In sum, the FDA concluded, such products did not add an excessive amount of fat to one’s diet, and a consumer had all the information she needed readily available. In declining to adopt mixed frames, however, the FDA relied on three mistaken assumptions – none of which supports the conclusion that mixed framing should *not* be adopted.

1. *Misleading*

At an intuitive level, the FDA did not consider the possibility that single frames might fail to provide enough information to meet the Agency’s statutory directive and diminish “misleading” statements. Through its formal rulemaking proceedings in the 1990s, the FDA sought to ensure that “foods bearing a ‘percent fat-free’ claim will not contribute [an] excessive amount of fat to the total diet.”¹⁴³ Indeed, the FDA promulgated its 1993 rule out of a statutory mandate to ensure clear product labeling; under the Nutrition Labeling and Education

¹³⁷. FSIS Memorandum, *supra* note 104, at 45.

¹³⁸. See Nutrition Labeling of Meat and Poultry Products, 58 Fed. Reg. 632, 651 (Jan. 6, 1993) (codified as amended at 9 C.F.R. §§ 317.36, 381.462 (2018)).

¹³⁹. See Nutrition Labeling of Single-Ingredient Products and Ground or Chopped Meat and Poultry Products, 75 Fed. Reg. 82148, 82157–58 (Dec. 29, 2010) (to be codified at 9 C.F.R. pts. 317, 381).

¹⁴⁰. See Food Labeling: Nutrient Content Claims, General Principles, Petitions, Definition of Terms; Definitions of Nutrient Content Claims for the Fat, Fatty Acid, and Cholesterol Content of Food, 58 Fed. Reg. 2302, 2330 (Jan. 6, 1993) (to be codified at 21 C.F.R. pts. 5, 101).

¹⁴¹. 21 C.F.R. § 101.62(b)(iii)(2) (2018) (laying out a complex definition that varies based on portion sizes and the food’s dehydrated or processed nature).

¹⁴². Food Labeling, 58 Fed. Reg. at 2330–31.

¹⁴³. *Id.* at 2330.

Act (NLEA) of 1990, the Agency “shall permit statements describing the amount and percentage of nutrients in food which are not *misleading*”¹⁴⁴ because a food is “misbranded” if its labeling is “false or misleading in any particular.”¹⁴⁵ Specifically, a food is misbranded if a claim is made on the label that characterizes the level of any nutrient of the type required to be declared in nutrition labeling—unless the claim conforms to the specific requirements of the Act.¹⁴⁶ More generally, to determine if a label is misleading, the Food, Drug, and Cosmetic Act of 1938 considers “not only representations made or suggested by statement, word, design, device, or any combination thereof, but also the extent to which the labeling or advertising fails to reveal [material] facts.”¹⁴⁷ In sum, borrowing a dictionary definition, labels should not “cause [consumers] to believe something that is not so, whether by words or silence, action or inaction.”¹⁴⁸

In light of the empirical data discussed in Section II.B, the misleading nature of percent fat-free labels is at least probable, for what is “misleading” depends on consumer perceptions. As the Sixth Circuit recently held, “the scientific validity of a consumer’s belief is not the standard for reasonableness. Rather, ‘[i]n considering charges of false and deceptive advertising, the public’s impression is the only true measure of deceptiveness.’”¹⁴⁹ In fact, in *FTC v. Brown & Williamson Tobacco Corp.*, Judge Robert Bork recognized that, although it is not the case that “consumer survey evidence must, as a matter of law, be presented to support a finding that an advertisement has a tendency to deceive,” empirical evidence is useful in evaluating ambiguous labels.¹⁵⁰ Percent fat statements on their own are potentially misleading because consumers may see two similar percentages but fail to understand how different they are in dietary terms. The insights of the behavioral-economics approach discussed in Part II, as well as the empirical data collected in this Note, show that an average consumer might not feel that “90% fat-free” differs significantly from “95% fat-free.” But the first contains twice as much fat as the second.

If anything, then, mandating mixed frames whenever manufacturers wish to include percent fat-free claims would bring the FDA in compliance with its own

144. Nutrition Labeling and Education Act of 1990, Pub. L. No. 101-535, § 3, 104 Stat. 2353, 2361 (codified as amended at 21 U.S.C. § 343 (2018)) (emphasis added).

145. 21 U.S.C. § 343(a)(1).

146. *Id.* § 343(r)(1)(A).

147. *Id.* § 321(n).

148. *Misleading*, BLACK’S LAW DICTIONARY (10th ed. 2014).

149. *ECM BioFilms, Inc. v. FTC*, 851 F.3d 599, 611 (6th Cir. 2017) (quoting *FTC v. Brown & Williamson Tobacco Corp.*, 778 F.2d 35, 39-40 (D.C. Cir. 1985)).

150. *Brown & Williamson Tobacco Corp.*, 778 F.2d at 40.

stated goals and statutory mandate. Beyond the duty to prevent misleading labels, the NLEA also provides that a product may not be labeled with a percent fat-free statement if it contains fat in an amount that increases “the risk of disease or a health related condition” – unless the label “discloses the level of such fat or saturated fat in immediate proximity to such claim and with appropriate prominence which shall be no less than one-half the size of the claim with respect to the level of cholesterol.”¹⁵¹ For over thirty years experts have agreed that people should adopt a diet that reduces total fat intake as a way of diminishing the incidence of numerous health conditions.¹⁵² But allowing percent fat-free claims does the exact opposite: it incentivizes fat intake by framing the fat content in a way that misleads consumers by priming them to conceive of a product as largely free from fat. There is thus little doubt that the FDA has the required delegated authority to mandate mixed frames – and, indeed, doing so would bring the Agency one step closer to compliance with its mandate.

2. *Technical Terms*

The FDA failed to consider the possibility that consumers might not possess the technical knowledge necessary to interpret the meaning of permissible percent fat-free statements. The FDA believed that, since a label that includes a percent fat-free statement must also meet the complex “low fat” definition under its regulation, no further disclosure was necessary.¹⁵³ But it is rather unlikely that consumers know that, according to the Federal Register, only “low fat” foods may present a percent fat-free or percent lean label,¹⁵⁴ especially where meat and poultry products do not follow the same rule.¹⁵⁵ Or that the “low fat” definition varies depending on portion sizes as well as the processed or dehydrated nature of the food product.¹⁵⁶ In other words, these are “technical terms” beyond consumers’ knowledge base. As the D.C. Circuit has long recognized, “in situations

¹⁵¹. Nutrition Labeling and Education Act of 1990, Pub. L. 101-535, § 3, 104 Stat. 2353, 2358 (codified as amended at 21 U.S.C. § 343 (2018)).

¹⁵². See *supra* Section II.A (discussing the consensus in the 1980s).

¹⁵³. Food Labeling: Nutrient Content Claims, General Principles, Petitions, Definition of Terms; Definitions of Nutrient Content Claims for the Fat, Fatty Acid, and Cholesterol Content of Food, 58 Fed. Reg. 2302, 2330-31 (Jan. 6, 1993) (to be codified at 21 C.F.R. pts. 5, 101).

¹⁵⁴. *Id.*

¹⁵⁵. Nutrition Labeling of Single-Ingredient Products and Ground or Chopped Meat and Poultry Products, 75 Fed. Reg. 82148, 82157 (Dec. 29, 2010) (to be codified at 9 C.F.R. pts. 317, 381) (adopting mixed frames for ground-meat products).

¹⁵⁶. 21 C.F.R. § 101.62(b)(iii)(2) (2018).

involving ‘technical . . . terms,’ it may become reasonable to *assume* that members of the public may be ‘unaware of the . . . meanings of such terms’ and that ‘substantial numbers’ [of consumers] might be misled.”¹⁵⁷ Percent fat labels should be understood as technical terms, especially given their complex regulatory history.

3. *Bold Fonts*

The FDA mistakenly assumed that consumers carefully read “nutrition facts” labels, which are typically written in exponentially smaller and plainer fonts. But, as the Ninth Circuit has noted, consumers simply “expect that the ingredient list contains more detailed information about the product that *confirms* other representations on the packaging.”¹⁵⁸ Moreover, in the words of the Second Circuit, consumers “should not be expected to consult the Nutrition Facts panel on the side of the box to correct misleading information set forth in large bold type on the front of the box.”¹⁵⁹ Front-of-package statements not only include positive frames, which are likely to elicit excessive buying; they also divert consumers’ attention from mandated disclosures contained in the Nutrition Facts labels.¹⁶⁰ Though only six of ten consumers look at nutrition labels,¹⁶¹ they are all forced to see the boldly printed front-of-package percent fat-free statements and absorb that information. Percent fat-free labels bear a striking resemblance to the “Smart Choices” scheme adopted by Kellogg, Kraft, and Unilever, which was eventually discontinued following public outcry and FDA condemnation.¹⁶² It is not hard to infer why these labels are so common: they reasonably elicit certain kinds of reactions from consumers by emphasizing a specific way of thinking about the advertised objects.

157. *FTC v. Brown & Williamson Tobacco Corp.*, 778 F.2d 35, 41 (D.C. Cir. 1985) (emphasis added) (quoting *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626, 652 (1985)).

158. *Williams v. Gerber Prods. Co.*, 552 F.3d 934, 939–40 (9th Cir. 2008) (emphasis added).

159. *Mantikas v. Kellogg Co.*, 910 F.3d 633, 637 (2d Cir. 2018).

160. See Brian Roe et al., *The Impact of Health Claims on Consumer Search and Product Evaluation Outcomes: Results from FDA Experimental Data*, 18 J. PUB. POL’Y & MKTG. 89, 99–101 (1999).

161. See, e.g., Nicholas Jay Ollberding et al., *Food Label Use and Its Relation to Dietary Intake Among US Adults*, 110 J. AM. DIETETIC ASS’N 1233, 1233 (2010) (finding that 61.6% of participants reported using the Nutrition Facts panel).

162. See Letter from Michael R. Taylor & Jerold R. Mande to the Smart Choices Program, U.S. FOOD & DRUG ADMIN. (Aug. 19, 2009), <https://foodpolitics.com/wp-content/uploads/Joint-ltr-FDA-USDA-Krol-8-19-09.pdf> [<https://perma.cc/K5KA-DD45>].

C. *Making Sense of the Goals of Consumer Regulation*

In some contexts, it could be tempting to rely on the sort of evidence discussed in Section III.B and reach a conclusion similar to Jolls and Sunstein's argument in the breast cancer example: the negative frame should be mandated in an effort to debias consumers through framing.¹⁶³ In the context of food labeling, that conclusion would assume that (i) consumers, in reading percent fat-free statements, are affected by bounded rationality which leads them to make nonrational decisions; (ii) purely positive frames cause consumers not to follow their true preferences; and (iii) purely negative frames alleviate bounded rationality and highlight consumers' true preferences.

This Note neither supports nor disputes those assumptions in any given context. Rather, it focuses on the more general point that agencies often do not need to answer any of those questions in order to protect consumers – not even when they accept, as behavioral economists do, that framing does have an effect on human behavior.

Oftentimes, agencies should stay clear of minimizing (or maximizing) affect. And most certainly they should not attempt to turn people into rationalist automata.¹⁶⁴ In many contexts, such as food labeling, the regulatory state should not be picking sides – as much as I would personally like to see it veer more decisively in a proconsumer direction. When the goal of regulation is informing consumers and empowering them to make informed decisions, paternalistic regulations might not only fall short of ideal; they may also be unnecessarily hard to promulgate. Agencies can better use their resources elsewhere, and mixed framing is an easy, noncontroversial way to provide complete and neutral information. In sum, consumer-protection law should not choose single framing as the orthodox way of conveying product attributes.¹⁶⁵

Instead, this Note shows a way of empowering people to make choices based on neutral and complete information. Mixed framing aims at allowing affective diversity, respecting consumer autonomy, and promoting informed decision-making by mandating a pluralistic frame, such that people may – to put it in Dan

^{163.} Jolls & Sunstein, *supra* note 18, at 216.

^{164.} See generally Posner, *supra* note 5 (arguing that economic models have abandoned the model of “hyperrational” actors).

^{165.} Dan Kahan claims that the law should not “embrace a partisan moral orthodoxy as citizens seek to identify the most efficacious means of achieving putatively secular ends” in their fight against cognitive illiberalism. Dan M. Kahan, *The Cognitively Illiberal State*, 60 STAN. L. REV. 115, 118 (2007). Instead, political actors should self-consciously construct a discourse comprising a plurality of justifications, distinct from the plurality of worldviews held by members of the society and yet capable of affirming those competitive viewpoints. See *id.* at 146.

Kahan's terms—maximize the richness and variety of their affect-laden cognitions.¹⁶⁶ Such an approach would neither be unprecedented nor politically unfeasible.

Although it is certainly hard to predict the likelihood that the agencies would promulgate mixed-framing regulations under their statutory authority, there is some precedent. Beyond the case of ground-meat products discussed in Section II.A, one does not have to look far for similar examples: aside from the case of *Expressions Hair Design*, think about fabric percentages on clothing labels, drug side effects, or vaccine efficacy. But mixed framing has never been considered in other contexts, and the consumer-protection scholarship has completely ignored this tool. It is therefore unsurprising that this approach does not appear to be on the regulators' radar.

Moreover, mixed frames would be politically viable. As discussed in Section II.A, mixed frames on food labels were common in the 1970s, and it was the producers themselves who petitioned the Agency to allow mixed framing for ground-meat products.¹⁶⁷ From the manufacturers' point of view, then, there would seem to be little intrinsic evil in mixed frames—or, at the very least, one that they can live with. Single-frame disclosures are voluntary, and the additional costs of using a mixed-framing format would be negligible. Lastly, mixed frames can satisfy both paternalist agencies and free-market-libertarian regulators, thus boosting their bipartisan appeal: they enhance consumer autonomy while also preventing deception.¹⁶⁸ Even in today's deregulatory climate, mixed-framing regulation could be feasible.

Yet, as it happened with the graphic warnings on cigarette packaging, for instance,¹⁶⁹ the food industry would likely challenge any additional disclosure requirement—even a minimally intrusive one like mixed framing.¹⁷⁰ As Section IV.A discusses in more detail, the probable First Amendment challenge against mixed-framing regulations as unconstitutionally compelled commercial speech is unlikely to succeed.

¹⁶⁶ Cf. *id.* at 145 (arguing that, instead of attempting to cleanse the law of partisan meanings, lawmakers should infuse it with so many meanings that every cultural group can find affirmation of its competitive worldview within it).

¹⁶⁷ See *supra* notes 114–117 and accompanying text.

¹⁶⁸ See *supra* Section III.A; *infra* Section IV.B.

¹⁶⁹ See *R.J. Reynolds Tobacco Co. v. FDA*, 696 F.3d 1205 (D.C. Cir. 2012), *overruled in part by* *Am. Meat Inst. v. USDA*, 760 F.3d 18 (D.C. Cir. 2014) (en banc).

¹⁷⁰ See, e.g., Christine Jolls, *Product Warnings, Debiasing, and Free Speech: The Case of Tobacco Regulation*, 169 J. INSTITUTIONAL & THEORETICAL ECON. 53 (2013).

IV. FIRST AMENDMENT AND PATERNALISM CONCERNS

Regulations based on mixed framing might be normatively desirable, and they might even help agencies approximate their statutory objectives. But that alone does not make the proposal constitutional. First Amendment jurisprudence could potentially cast any regulation of attribute framing as an unconstitutional infringement on the freedom of speech. In particular, for some, debiasing through mixed framing could amount to unconstitutionally compelled commercial speech. For others, even if constitutional, mixed framing might be nothing but another tool of paternalistic bureaucrats.

This Part completes the case for mixed framing by addressing two central critiques. Section IV.A discusses how mixed-framing regulations survive First Amendment scrutiny, while Section IV.B differentiates my mixed-framing proposal from libertarian paternalism¹⁷¹ and nudging.¹⁷² Throughout this Part, I will continue to map out the normative and analytic properties that make mixed framing a superior approach to consumer protection.

A. First Amendment Challenges to Debiasing Through Mixed Framing

Because regulation often entails mandatory disclosures, it might evoke possible conflicts with the First Amendment. Given that “nearly all human action – and so state regulation – operates through communication, the First Amendment possesses near total deregulatory potential.”¹⁷³ This quality, some have argued, renders the First Amendment similar to a pipe wrench: it “is so often pressed into service for tasks on the periphery of its central purposes”¹⁷⁴ that it

171. See RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* 5–6 (2008) (“Libertarian paternalism is a relatively weak, soft, and nonintrusive type of paternalism because choices are not blocked, fenced off, or significantly burdened [P]rivate and public choice architects . . . are self-consciously attempting to move people in directions that will make their lives better. They nudge.”).

172. See *id.* at 6 (defining a “nudge” as “any aspect of the choice architecture that alters people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives” with the goal of making their lives better); PETE LUNN, *REGULATORY POLICY AND BEHAVIOURAL ECONOMICS* 9 (2014) (“[B]ehavioural economics and so-called ‘nudges’ are distinct. The former is a scientific subdiscipline; the latter is a particular way to apply its findings to policy, which holds that policy makers should avoid regulations that limit choice (bans, caps, etc.) but can use behavioural science to direct people towards better choices.”).

173. Amanda Shanor, *The New Lochner*, 2016 WIS. L. REV. 133, 176.

174. Frederick Schauer, *First Amendment Opportunism*, in *ETERNALLY VIGILANT: FREE SPEECH IN THE MODERN ERA* 175, 176 (Lee C. Bollinger & Geoffrey R. Stone eds., 2002).

constitutes “both the first and the last refuge of saints and scoundrels alike.”¹⁷⁵ In particular, modern regulatory tools such as mandatory disclosures are more prone to appear speech regulating than the traditional mandates and bans on conduct, and they have thus “placed the modern regulatory state in greater potential tension with the First Amendment.”¹⁷⁶

Mixed frames, if seen as compelled commercial speech, would fall within the scope of the First Amendment. In the words of the Supreme Court, commercial speech is “speech which does no more than propose a commercial transaction”¹⁷⁷ or an “expression related solely to the economic interests of the speaker and its audience.”¹⁷⁸ But it “is not stripped of First Amendment protection merely because it appears in that form.”¹⁷⁹ It is settled law that product labels are commercial speech.¹⁸⁰ So, if the government mandates certain labels (such as mixed frames), it is undeniably compelling commercial speech.¹⁸¹

From the point of view of consumers, there are two main rationales for protecting commercial speech. One is its “informational function.”¹⁸² According to Robert Post, commercial speech doctrine is motivated by “the cognitive contribution of speech to democratic decision-making, rather than the legitimization-producing effects of speech understood as a vehicle of participation.”¹⁸³ Indeed, “in a free market economy, the ability to give and receive information about commercial matters may be as important, sometimes more important, than expression of a political, artistic, or religious nature.”¹⁸⁴ Another rationale is its social function. Martin Redish thought that commercial speech was constitutionally

175. *Id.* at 193.

176. Shanor, *supra* note 173, at 164.

177. *Bolger v. Youngs Drug Prods. Corp.*, 463 U.S. 60, 66 (1983) (quoting *Pittsburgh Press Co. v. Human Relations Comm’n*, 413 U.S. 376, 385 (1973)).

178. *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm’n*, 447 U.S. 557, 561 (1980).

179. *Bigelow v. Virginia*, 421 U.S. 809, 818 (1975).

180. *Rubin v. Coors Brewing Co.*, 514 U.S. 476, 481 (1995) (treating beer labels as commercial speech entitled to protection under the First Amendment); *see also, e.g., Bad Frog Brewery, Inc. v. N.Y. State Liquor Auth.*, 134 F.3d 87, 97 (2d Cir. 1998) (holding a product label to be commercial speech).

181. *See* Ellen P. Goodman, *Visual Gut Punch: Persuasion, Emotion, and the Constitutional Meaning of Graphic Disclosure*, 99 CORNELL L. REV. 513, 515 (2014) (providing examples of compelled commercial speech).

182. *Central Hudson*, 447 U.S. at 563.

183. Robert Post, *Reconciling Theory and Doctrine in First Amendment Jurisprudence*, 88 CALIF. L. REV. 2353, 2371-72 (2000) (citing *Central Hudson*, 447 U.S. at 563).

184. Alex Kozinski & Stuart Banner, *Who’s Afraid of Commercial Speech?*, 76 VA. L. REV. 627, 652 (1990).

valuable insofar as it promoted social welfare—and that is why “its values are better viewed with the consumer, rather than the seller, as the frame of reference.”¹⁸⁵

While the First Amendment has historically barred compelled *public* speech,¹⁸⁶ compelled *commercial* speech is different. There is little doubt that compelled commercial speech is a distinct doctrine under the First Amendment.¹⁸⁷ In *Zauderer*, the Supreme Court clearly distinguished between commercial and noncommercial compelled speech.¹⁸⁸ It held that, where the government has only attempted to “prescribe what shall be orthodox in commercial advertising” through disclosures that are “purely factual and uncontroversial,” an advertiser’s “constitutionally protected interest in *not* providing any particular factual information in his advertising is minimal.”¹⁸⁹ In those instances, in fact, compelled commercial speech is justified because it “dissipate[s] the possibility of consumer confusion or deception,”¹⁹⁰ which is “more likely to make a positive contribution to decisionmaking than is concealment of . . . information.”¹⁹¹ As Post put it, “Regulations that force a speaker to disgorge *more* information to an audience do not contradict the constitutional purpose of commercial speech doctrine”; instead, they may actually enhance it.¹⁹² In other words, free speech in-

185. Martin H. Redish, *The First Amendment in the Marketplace: Commercial Speech and the Values of Free Expression*, 39 GEO. WASH. L. REV. 429, 432-34 (1971).

186. See, e.g., *Harper & Row Publishers, Inc. v. Nation Enters.*, 471 U.S. 539, 559 (1985) (“The essential thrust of the First Amendment is to prohibit improper restraints on the voluntary public expression of ideas There is necessarily, and within suitably defined areas, a concomitant freedom not to speak publicly, one which serves the same ultimate end as freedom of speech in its affirmative aspect.” (emphasis omitted) (quoting *Estate of Hemingway v. Random House, Inc.*, 244 N.E.2d 250, 255 (N.Y. 1968))).

187. See, e.g., C. Edwin Baker, *Commercial Speech: A Problem in the Theory of Freedom*, 62 IOWA L. REV. 1, 3 (1976) (“[G]iven the existing form of social and economic relationships in the United States, a complete denial of first amendment protection for commercial speech is not only consistent with, but is required by, first amendment theory.”). But see Jonathan H. Adler, *Compelled Commercial Speech and the Consumer “Right to Know,”* 58 ARIZ. L. REV. 421, 435 (2016) (“Such analyses make the mistake of reading *Zauderer* as providing an alternative test for compelled commercial speech, as opposed to a relatively straightforward application of the *Central Hudson* framework”).

188. *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626, 637 (1985).

189. *Id.* at 651.

190. *Id.*

191. *Ibanez v. Fla. Dep’t of Bus. & Prof’l Regulation*, 512 U.S. 136, 142 (1994).

192. Robert Post, *Compelled Commercial Speech*, 117 W. VA. L. REV. 867, 877 (2015).

terests implicated by compelled commercial disclosures “are substantially weaker than those at stake when speech is actually suppressed.”¹⁹³

Unlike other kinds of compelled speech that have historically undergone judicial review as stringent as that of their restrictive counterparts,¹⁹⁴ commercial speech may be mandated if the inclusion of “additional information, warnings, and disclaimers”¹⁹⁵ survives a reasonableness test. In *Zauderer*, the Supreme Court reasoned that, “as long as disclosure requirements are reasonably related to the State’s interest in preventing deception of consumers,” there is no First Amendment violation.¹⁹⁶ Unlike restrictions on commercial speech, then, compelled commercial speech does not always need to be the least restrictive means to “directly advance[]” a substantial governmental interest, as required by *Central Hudson*.¹⁹⁷ Instead, purely factual and uncontroversial disclosure requirements must only be “reasonably related” to *some* governmental interest.¹⁹⁸ And several federal circuit courts have held that when the government compels commercial speech, *Zauderer* might only require that it point to its interest in correcting deception.¹⁹⁹ In sum, rational basis review applies to purely factual and uncontroversial compelled commercial speech.²⁰⁰

Scholars disagree about the First Amendment implications of compelled commercial disclosures. According to some, commercial speech is protected “to serve democratic competence.”²⁰¹ Therefore, compelling commercial speech is

193. *Zauderer*, 471 U.S. at 652 n.14.

194. See, e.g., *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 642 (1943) (“[T]he action of the local authorities in compelling the flag salute and pledge . . . invades the sphere of intellect and spirit which it is the purpose of the First Amendment to our Constitution to reserve from all official control.”).

195. *Va. State Bd. of Pharmacy v. Va. Citizens Consumer Council, Inc.*, 425 U.S. 748, 772 n.24 (1976).

196. *Zauderer*, 471 U.S. at 651.

197. *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm’n*, 447 U.S. 557, 566 (1980).

198. *Zauderer*, 471 U.S. at 651.

199. See, e.g., *CTIA-The Wireless Ass’n v. City of Berkeley*, 854 F.3d 1105, 1116 (9th Cir. 2017); *Am. Meat Inst. v. USDA*, 760 F.3d 18, 20 (D.C. Cir. 2014) (en banc); *Disc. Tobacco City & Lottery, Inc. v. United States*, 674 F.3d 509, 524 (6th Cir. 2012); *Pharm. Care Mgmt. Ass’n v. Rowe*, 429 F.3d 294, 310 (1st Cir. 2005); *Nat’l Elec. Mfrs. Ass’n v. Sorrell*, 272 F.3d 104, 114–15 (2d Cir. 2001).

200. See, e.g., *N.Y. State Rest. Ass’n v. N.Y.C. Bd. of Health*, 556 F.3d 114, 132 (2d Cir. 2009) (“In light of *Zauderer*, this Circuit thus held that rules ‘mandating that commercial actors disclose commercial information’ are subject to the rational basis test.” (quoting *Sorrell*, 272 F.3d at 114–15)).

201. ROBERT C. POST, *DEMOCRACY, EXPERTISE, AND ACADEMIC FREEDOM* 42 (2012).

permissible because it “can augment the flow of accurate information to the public and so actually advance the constitutional purpose of public education.”²⁰² Others fear that compelled speech empowers the government to “artificially amplif[y] its own message through the mouths of unwilling citizens, giving listeners a mix of information skewed to the government viewpoint.”²⁰³

Mandated disclosures have been the objects of at least some successful constitutional challenges, especially in recent years. The case of cigarette packaging is perhaps the best-known example of compelled commercial speech serving consumer interests that has been attacked on First Amendment grounds.²⁰⁴ Although the tobacco industry did not challenge verbal warnings on cigarette packages, it strongly opposed the graphic ones mandated by the Family Smoking Prevention and Tobacco Control Act of 2009.²⁰⁵ And it succeeded. In 2012, the D.C. Circuit struck down the rule requiring graphic warning labels.²⁰⁶ And even though that decision was later overruled in part,²⁰⁷ the warnings have not yet been implemented.²⁰⁸ A Securities and Exchange Commission rule that required firms using “conflict minerals” to report links to the Congo faced a similar fate.²⁰⁹ In both cases, finding that the regulations did not require “purely factual and uncontroversial” disclosures but instead compelled either deceptive²¹⁰ or ideological²¹¹ speech, the D.C. Circuit applied intermediate scrutiny, not *Zauderer*’s rational basis test.²¹²

202. *Id.*

203. Laurent Sacharoff, *Listener Interests in Compelled Speech Cases*, 44 CAL. W. L. REV. 329, 333 (2008).

204. In an attempt to resist the increasing threat of government regulations in the early 1970s, the tobacco industry shifted its focus from scientific claims to a free speech rhetoric. See STANTON A. GLANTZ ET AL., *THE CIGARETTE PAPERS* 185-86 (1996).

205. Jolls, *supra* note 170, at 56.

206. *R.J. Reynolds Tobacco Co. v. FDA*, 696 F.3d 1205, 1214-15 (D.C. Cir. 2012), *overruled in part by* *Am. Meat Inst. v. USDA*, 760 F.3d 18 (D.C. Cir. 2014) (en banc).

207. *Am. Meat Inst.*, 760 F.3d at 22-23 (explaining that, “[t]o the extent that” *R.J. Reynolds* limits the “reasonably related” standard to legally required disclosures that are targeted to “correcting deception, we now overrule [it]”).

208. See *Am. Acad. of Pediatrics v. FDA*, 330 F. Supp. 3d 657, 660 (D. Mass. 2018) (finding that “the FDA has both ‘unlawfully withheld’ and ‘unreasonably delayed’ agency action [on tobacco warning labels], and that pursuant to the Administrative Procedure Act (‘APA’), the court must compel agency action”).

209. *Nat’l Ass’n of Mfrs. v. SEC*, 748 F.3d 359, 362-63 (D.C. Cir. 2014), *overruled in part by* *Am. Meat Inst.*, 760 F.3d 18.

210. *R.J. Reynolds*, 696 F.3d at 1215-16.

211. *Nat’l Ass’n of Mfrs.*, 748 F.3d at 370-71.

212. *Id.* at 372; *R.J. Reynolds*, 696 F.3d at 1217.

Like many other disclosure schemes,²¹³ mixed-framing regulations would survive rational basis review. Indeed, because mixed framing does not compel either deceptive or ideological speech, the *Zauderer* level of scrutiny squarely applies.²¹⁴ Under a rational basis test, government actions “may be based on rational speculation unsupported by evidence or empirical data,”²¹⁵ as long as they are “reasonably related” to *some* governmental interest.²¹⁶ Mixed framing exceeds that low bar. Regulations relying on mixed framing provide accurate, “factual[,] and uncontroversial” information to prevent consumer deception.²¹⁷ As shown in Section II.B, single (positive or negative) frames have the potential to deceive consumers. Mixed-framing regulations simply mandate that, if a manufacturer wishes to include a label stating “98% fat-free,” it must also disclose the complementary and equivalent statement “2% fat.” Moreover, mixed framing furthers the state’s interest in improving consumer’s health—just as New York City’s calorie-disclosure requirement, according to the Second Circuit, furthered the government’s “goal of reducing obesity.”²¹⁸ In sum, mixed-framing regulations meet rational basis review.

Even if a court applied intermediate scrutiny, as the D.C. Circuit did for graphic cigarette packaging and conflict-minerals rules, mixed framing would

213. Examples abound. The Food, Drug, and Cosmetic Act requires that food products bear a disclosure label if they contain artificial coloring or flavoring, with limited exceptions. See 21 U.S.C. § 343(k) (2018). Federal law also mandates that food labels include their sodium content. See *id.* § 343(q)(1)(D). Similarly, fur clothing must bear a label identifying the type of animal that produced the fur, the country of origin, and whether it is used fur. See 15 U.S.C. § 69b (2018). Vehicle manufacturers must label each vehicle with its fuel economy in accordance with regulations issued by the Environmental Protection Agency. See 49 U.S.C. § 32908(b) (2018). And mutual funds advertising their prior performance must disclose that past performance is not a reliable indication of future performance. See 17 C.F.R. § 230.482(b)(3)(i) (2018).

214. Cf. *Expressions Hair Design v. Schneiderman*, 877 F.3d 99, 103 (2d Cir. 2017) (suggesting that a law that only allows “merchants to post the cash price alongside the credit card price, using something like [a] dual-price scheme” that resembles a mixed frame, would likely be subject to *Zauderer* review), *certified question answered*, 117 N.E.3d 730, 737 (N.Y. 2018). But see Micah L. Berman, *Manipulative Marketing and the First Amendment*, 193 GEO. L.J. 497, 499 (2015) (pointing out that review of commercial speech “has gradually become more and more stringent over time”).

215. *FCC v. Beach Commc’ns, Inc.*, 508 U.S. 307, 315 (1993).

216. *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626, 651 (1985).

217. *Id.*

218. *N.Y. State Rest. Ass’n v. N.Y.C. Bd. of Health*, 556 F.3d 114, 136 (2d Cir. 2009).

still survive.²¹⁹ Under the three applicable prongs of the *Central Hudson* test,²²⁰ compelled commercial speech meets intermediate scrutiny if (i) “the asserted governmental interest is substantial,” and the mandated speech (ii) “directly advances the governmental interest asserted” and (iii) “is not more extensive than is necessary to serve that interest.”²²¹ To be sure, the Supreme Court has offered “little guidance” on how to apply this test: “Exactly which state interests are ‘substantial’? How ‘directly’ must a state regulation advance a substantial government interest? How narrowly tailored must a regulation be?”²²² Yet the *Central Hudson* test has been compared to intermediate scrutiny.²²³ Mandating a disclosure that is mathematically and logically equivalent to information already voluntarily disclosed by manufacturers, and doing so to directly halt misleading information, clearly meets intermediate scrutiny.

Mixed framing satisfies the first *Central Hudson* prong because it advances the government’s substantial interest in accurate information. Indeed, mixed framing ensures the availability of accurate, factual information that is vital to consumers.²²⁴ In *National Electric Manufacturers Ass’n v. Sorrell*, for example, the Second Circuit upheld a statute mandating manufacturers to disclose the presence of mercury in their products on the grounds that “mandated disclosure of accurate, factual, commercial information . . . furthers, rather than hinders, the First Amendment goal of the discovery of truth and contributes to the efficiency

219. It is important to note here that, because *Zauderer* held that compelled commercial speech is entitled to First Amendment protection “less extensive than that afforded ‘noncommercial speech,’” strict scrutiny is not an option. 471 U.S. at 637; see also Allen Rostron, *Pragmatism, Paternalism, and the Constitutional Protection of Commercial Speech*, 37 VT. L. REV. 527, 572 (2013) (“Applying strict scrutiny to compelled disclosures that fall outside *Zauderer* . . . runs counter to the Supreme Court’s frequent suggestion that disclosure requirements pose much less of a threat to First Amendment values than speech restrictions.”).

220. The first prong of the *Central Hudson* test—whether the *restricted* commercial speech “concern[s] lawful activity and [is] not . . . misleading”—is hardly applicable to *compelled* commercial speech. See *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm’n*, 447 U.S. 557, 566 (1980).

221. *Id.*

222. Post, *supra* note 192, at 881.

223. *Fla. Bar v. Went For It, Inc.*, 515 U.S. 618, 623 (1995).

224. Cf. Robert Post, *The Constitutional Status of Commercial Speech*, 48 UCLA L. REV. 1, 28 (2000) (“Within commercial speech, . . . the primary constitutional value concerns the circulation of accurate and useful information. For the state to mandate disclosures designed more fully and completely to convey information is thus to advance, rather than to contradict, pertinent constitutional values.”).

of the ‘marketplace of ideas.’”²²⁵ Mixed framing does just that: it forces manufacturers to disclose the complementary frame they would otherwise omit, and provide vital, accurate, and factual information to consumers. And “[p]rotecting consumers from unwitting harm,”²²⁶ often to their health,²²⁷ caused by misleading and partial information is as important as “the government’s interest in protecting consumers from fraud or deception.”²²⁸

Mixed framing satisfies the second *Central Hudson* prong, too—because mixed framing has a direct impact on purchasing habits and information processing. Empirical data suggest that single frames can be misleading and that any number of psychological biases can lead consumers to make inconsistent choices. As shown in Section II.B, mixed framing possesses an empirically proven ability to address information asymmetries that single framing might cause. Mixed framing, that is, offers the most neutral way of framing product attributes. For this reason, mixed framing directly furthers the state’s substantial interest in ensuring that people have all of the accurate information they need to make autonomous decisions.

Because mixed-framing regulations would not be more extensive than is necessary to serve the government’s substantial interests, the third prong of *Central Hudson* is also satisfied. The mandated disclosure here is rather minimal and not burdensome: it involves the disclosure of the complementary frame if, and only if, the manufacturer chooses to include a percentage statement on the label. For mixed frames of food attributes, the compelled disclosure involves just one number, one symbol, and one word (such as adding the disclosure “2% fat” next to the manufacturer’s voluntary statement “98% fat-free”). And even if that information were deemed redundant in an exercise of judicial second-guessing,²²⁹ that does not mean it is unnecessarily extensive. As discussed in Section II.B, the

225. 272 F.3d 104, 114 (2d Cir. 2001).

226. Adler, *supra* note 187, at 443.

227. See, e.g., George A. Bray & Barry M. Popkin, *Dietary Fat Intake Does Affect Obesity!*, 68 AM. J. CLINICAL NUTRITION 1157, 1157 (1998) (“[A]mple research from animal and clinical studies, from controlled trials, and from epidemiologic and ecologic analyses provides strong evidence that dietary fat plays a role in the development and treatment of obesity.”); *Fats and Cholesterol*, HARV. T.H. CHAN SCH. PUB. HEALTH, <https://www.hsph.harvard.edu/nutritionsource/what-should-you-eat/fats-and-cholesterol> [<https://perma.cc/ZW6R-PPFM>] (“Rather than adopting a low-fat diet, it’s more important to focus on eating beneficial ‘good’ fats and avoiding harmful ‘bad’ fats.”).

228. Adler, *supra* note 187, at 443.

229. Cf. Donald W. Garner & Richard J. Whitney, *Protecting Children from Joe Camel and His Friends: A New First Amendment and Federal Preemption Analysis of Tobacco Billboard Regulation*, 46 EMORY L.J. 479, 559 (1997) (noting the extent of “judicial second-guessing encouraged by the fourth prong of the *Central Hudson* test”).

framing of disclosures matters. Data show that even accurate and factual information can be deceptively framed. And that is why mixed framing furthers First Amendment interests: it ensures that ideas (fat content, for instance) are accessible and neutrally conveyed.

B. What Mixed Framing Is Not: Paternalism and Nudging

The regulatory approach I propose, in a nutshell, furthers important governmental interests by allowing affective diversity, respecting consumer autonomy, and promoting informed decision-making based on neutral and complete information. But many might object that mandating the disclosure of redundant information (such as the percentage of fat in the presence of percent fat-free claims) is at least mildly paternalistic—and, in the end, is mere nudging.

I disagree, and this last Section discusses what debiasing through mixed framing is *not*. Mixed framing is neither a kind of paternalistic regulation nor another tool of behavioral economists to nudge consumers. Instead, mixed framing disproves central assumptions in both behavioral economics and rational-choice theory: that information cannot be neutrally conveyed and that consumer-oriented regulation diminishes autonomy. Mixed framing represents a way of neutrally promulgating food-attribute information—a theoretically appealing path to viable, consumer-oriented policy reform.

Before moving further along, though, it is important to pause on the threshold question: what is paternalism?²³⁰ Traditional approaches go back to John Stuart Mill's notion that paternalism amounts to "saying to another human creature of ripe years, that he shall not do with his life for his own benefit what he chooses to do with it."²³¹ In that vein, Gerald Dworkin has defined paternalism as "roughly the interference with a person's liberty of action justified by reasons referring exclusively to the welfare, good, happiness, needs, interests or values of the person being coerced" without her consent.²³² Others have endorsed similarly Millian definitions.²³³ Thus, the key aspects of traditional paternalism are infringement on autonomy and coercion.

²³⁰. See generally Gerald Dworkin, *Defining Paternalism*, in *PATERNALISM: THEORY AND PRACTICE* 25, 28–31 (Christian Coons & Michael Weber eds., 2013) (outlining a list of competing definitions of paternalism).

²³¹. JOHN STUART MILL, *On Liberty*, in *ON LIBERTY, WITH THE SUBJECTION OF WOMEN AND CHAPTERS ON SOCIALISM* 1, 76 (Stefan Collini ed., Cambridge Univ. Press 1989) (1859).

²³². Gerald Dworkin, *Paternalism*, 56 *MONIST* 64, 65 (1972).

²³³. See, e.g., DONALD VANDEVEER, *PATERNALISTIC INTERVENTION: THE MORAL BOUNDS ON BE-NEVOLENCE* 22 (1986) (arguing that an agent engages in paternalism through a deliberate act or omission if (i) she believes that intervention to be contrary to the other person's "operative

But interference with autonomy might not always be necessary to assign the paternalism label. If one accepts Sunstein and Thaler's definition of libertarian paternalism, then the problem is any "attempt to influence people's behavior even when third-party effects are absent" by "steer[ing] people's choices in directions that will improve the choosers' own welfare."²³⁴ This is a very weak definition, engulfing as paternalistic a number of acts significantly greater than almost any other traditional definition. Under this conception of paternalism, if an action is *intended* to steer choices, and those effects are meant to enhance the target's welfare, then that action is paternalistic—even if the act has no impact on autonomy or liberty and no coercion is involved (this is the libertarian aspect). In other words, only intent to steer choices and intent to improve welfare are needed for libertarian paternalism.

1. Traditional Paternalism

Various charges of paternalism may be waged against mixed-framing regulations. Under the more traditional definitions, some might argue that consumers will find mixed frames redundant in light of the information already disclosed via single frames. After all, everyone knows that 95% fat-free yogurt is 5% fat. But failure to provide information, such as the fat percentage, on those grounds is even more paternalistic—and it is misleading to boot. It is far from clear why it should not be up to the consumer to decide what information is truly redundant, or why anyone should deprive consumers of the freedom to make that judgment. And the data show that single frames skew consumer behavior toward one end of the preference spectrum.²³⁵ Mixed frames, instead, avoid that volatility of information by packaging the same information that the manufacturer chooses to disclose in a neutral and nonmisleading way.

But the paternalism criticism could run deeper, reaching the core assumptions behind the mixed-framing proposal: isn't it intrinsically paternalistic to assume that consumers *need* a plurality of information to make informed decisions? That objection is doubly flawed.

preference, intention, or disposition," and (ii) "the primary or sole aim" of that intervention is to benefit or prevent harm to the other person); Colin Camerer et al., *Regulation for Conservatives: Behavioral Economics and the Case for "Asymmetric Paternalism,"* 151 U. PA. L. REV. 1211, 1211 (2003) (describing paternalistic regulations as "tread[ing] on consumer sovereignty by forcing, or preventing, choices for the individual's own good, much as when parents limit their child's freedom to skip school or eat candy for dinner").

²³⁴ Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not an Oxymoron*, 70 U. CHI. L. REV. 1159, 1162 (2003).

²³⁵ See generally *supra* Section II.B.

First, the objection includes the unstated premise that a mixed frame amounts to a “plurality” of information. As discussed in Part I and empirically demonstrated in Part II, the components of a mixed frame (two single frames) appear to allow consumers to internalize different information about a given product. In other words, these frames present partial information. On their own, the individual single frames are inadequate vehicles for neutral and complete information. Although the single frames logically convey the same information, they express it in different ways. And those different expressions elicit polarized reactions. In other words, the only additional information supplied through mixed framing is logically equivalent to that already provided by a single frame. Through mixed framing, then, there is no plurality of information. There is only a plurality of *expressions* of the same information.

Second, even if mixed frames did provide a plurality of information, this objection unsoundly assumes that *less* information is sufficient to allow individuals to make *more* autonomous decisions. Under this line of argument, consumers do not need more information to make informed decisions because the only information they need is the partial information that the market freely provides. In other words, any government-mandated disclosure of information is a form of paternalism because it forces the market to provide more information. But that is the flaw of this line of criticism: not all mandated disclosures tread on autonomy by paternalistically attempting to influence behavior. The effect of mixed frames is the neutral promulgation of information. And one cannot act autonomously, free from external influences, when a third party (the manufacturer, for instance) favors partial information over access to more complete and neutral information.²³⁶ That choice architecture, indeed, is the hallmark of paternalism. The antipaternalistic and libertarian argument that less information ought to be provided to consumers relies on the unsound assumption that decision-making is more autonomous when it is more uninformed.

236. Cf. ARISTOTLE, NICOMACHEAN ETHICS 94-95 (Roger Crisp ed. & trans., 2000) (c. 384 B.C.E.) (“By voluntariness I mean . . . that which lies in an agent’s power and which he does knowingly, that is, not in ignorance of the person affected, the instrument used, or the end of the action An involuntary action, then, is one performed in ignorance, or, if not in ignorance, beyond the agent’s control or under compulsion . . .”).

2. *Libertarian Paternalism and Nudging*

Because we are often unaware of our preferences and we must construct them, and because it is frequently inevitable that others will manage our preferences,²³⁷ libertarian paternalism is appealing. Though preferences must be managed for the good of those affected (paternalism), such management should not annul freedom of choice (libertarianism).²³⁸ According to Thaler and Sunstein, nudging is a kind of libertarian paternalism.²³⁹ A “nudge” is an aspect of choice architecture—that is, the “organizing [of] the context in which people make decisions.”²⁴⁰ Nudges “alter[] people’s behavior in a predictable way without forbidding any options or significantly changing their economic incentives.”²⁴¹ Therefore, behavioral economists conclude that, “[i]n the real world[,] the distinction between informing people and nudging them *almost always* breaks down” because, for example, you almost always have to order information.²⁴² There is some truth to this statement. Once you disclose information, you must put it in *some* order. Choice architecture is often inevitable.²⁴³

But not always: informing people without nudging them is still possible. Mixed framing, I argue, is one way to do so. Mixed framing operates only in situations where some information is already voluntarily provided by manufacturers. In that case, the question is: how can that information be framed without pushing consumers in a particular direction? Where, as Section II.B demonstrated, single frames lead to polarized behaviors, mixed frames emerge as the least volatile way of communicating information to consumers. As a threshold matter, because the data show that the order (positive-negative or negative-positive) of mixed frames has no statistically significant impact on behavior, the distinction between informing and nudging does not seem to break down when it

237. See, e.g., Slovic, *supra* note 32, at 369 (arguing that “preferences are not simply read off some master list but are constructed on the spot by an adaptive decision maker” through a series of cognitive tools used by boundedly rational consumers to make decisions).

238. See Richard H. Thaler & Cass R. Sunstein, *Libertarian Paternalism*, 93 AM. ECON. REV. 175, 176–78 (2003).

239. See THALER & SUNSTEIN, *supra* note 171, at 5 (“The libertarian aspect of our strategies lies in the straightforward insistence that, in general, people should be free to do what they like—and to opt out of undesirable arrangements if they want to do so The paternalistic aspect lies in the claim that it is legitimate for choice architects to try to influence people’s behavior in order to make their lives longer, healthier, and better.”).

240. *Id.* at 3.

241. *Id.* at 6.

242. Lichtenberg, *supra* note 10, at 669 (emphasis added).

243. See THALER & SUNSTEIN, *supra* note 171, at 118–22.

comes to mixed framing (at least empirically). Most importantly, this Note's alternative approach to regulation does not steer consumers, or even nudge them, to act in a certain way. Its only goal is to fully inform, regardless of how consumers will behave in response to the information. In other words, mixed framing lacks the hallmark of libertarian paternalism: intent to steer choices in a certain direction.²⁴⁴

Instead, mixed framing endorses the idea that people should be provided with neutral and complete information so that they can choose wisely—rationally interpreting language in light of their (however irrational) personal beliefs, emotions, and preferences. As Martin H. Redish put it, “[S]elf-rule is fostered by the receipt of information that enables the individual to make life-affecting decisions in a more informed fashion.”²⁴⁵ Mixed framing should be adopted not because it reliably produces a certain outcome; instead, it is appealing because it empowers consumers to *choose* their preferred outcome, free from third-party attempts to shape the universe of information upon which they rely.

That democracy, as C. Edwin Baker points out,²⁴⁶ or economic markets, as Cass Sunstein argues,²⁴⁷ may operate with *optimal* rather than *complete* information is “beside the point.”²⁴⁸ The evidence from empirical data is that optimal yet partial information is volatile and leads to polarized consumer behavior, eliciting results so significantly different from one another as to provide evidence of potentially inconsistent decision-making. Mixed frames are one solution. “The assumption underlying this approach is that people’s poor choices arise only from ignorance rather than from other cognitive or emotional shortcomings.”²⁴⁹ Mixed framing, in other words, diminishes the grounds for ignorant behavior while maximizing consumers’ autonomy to be ignorant.

Mixed framing allows consumers to make decisions from a position of neutrality. It empowers individuals to be autonomous, in the sense that it prevents

²⁴⁴. Cf. Thaler & Sunstein, *supra* note 238, at 179.

²⁴⁵. Martin H. Redish, *Self-Realization, Democracy, and Freedom of Expression: A Reply to Professor Baker*, 130 U. PA. L. REV. 678, 682 (1982).

²⁴⁶. See C. Edwin Baker, *Realizing Self-Realization: Corporate Political Expenditures and Redish’s The Value of Free Speech*, 130 U. PA. L. REV. 646, 661 (1982) (“[B]oth self-rule and democracy can and do operate without full or complete information. In fact, it is unclear why full and complete information should have a particularly high status among all the goods or resources instrumentally useful to self-rule.”).

²⁴⁷. See Cass R. Sunstein, *Informing America: Risk, Disclosure, and the First Amendment*, 20 FLA. ST. L. REV. 653, 655–56 (1993) (“Perhaps the market has produced the optimal level of information. The optimal level is not complete information. If the optimal level is produced, there is no market failure, even if there might be a problem under noneconomic criteria. But there are several reasons why the market for information may indeed fail.”).

²⁴⁸. Redish, *supra* note 245, at 683.

²⁴⁹. Lichtenberg, *supra* note 10, at 664.

any third party (whether the government or a manufacturer) from shaping and influencing an individual's choices by favoring partial information over access to more complete and neutral information. Either mixed frame (positive-negative or negative-positive) can serve its goal of informing consumers. It gives them the information they need to act autonomously, without nudging them toward either end of the spectrum or allowing some third party to steer their decision-making process in a certain direction. Whether consumers will take that information and act in a welfare-maximizing way is up to their autonomous decision making. Mixed framing only ensures that—by minimizing polarizing framing effects and third-party choice architecture—neutral, accurate, and complete information is maximized.

CONCLUSION

Regulators have thus far approached consumer-protection law in a binary fashion: either they adopt the rational-choice view and a laissez-faire stance, or they side with the existing behavioral-economics literature and its paternalistic overtones. This Note argues that a much better approach is available than the existing behavioral law-and-economics scholarship has suggested. Consumer-protection law should not choose one (single) framing as the orthodox way of conveying product attributes, nor should it leave it completely up to the market to choose. Instead, mixed framing is a politically viable approach for the regulatory state to enhance consumer protection, and one that is already familiar to business groups.²⁵⁰ Mixed framing has the potential to debias consumers by taming the otherwise polarizing effects of purely positive or purely negative frames.

In closing, it is worth noting that the impact of mixed framing is not limited to the food-labeling case emphasized in this Note. For example, mixed framing could be a palatable solution to the legal challenge in *Expressions Hair Design*,

250. In the 1990s, as noted in Section II.A, trade associations representing both manufacturers and retailers petitioned the FSIS to allow mixed frames for ground beef because they had been using a “percent lean/percent fat” labeling system ever since 1973, when the U.S. Department of Agriculture developed the Uniform Retail Meat Identity Standards. See Nutrition Labeling of Ground Beef and Hamburger, 59 Fed. Reg. 26916, 26917 (proposed May 24, 1994) (to be codified at 9 C.F.R. § 317.362).

discussed in the Introduction.²⁵¹ Because dual pricing in New York is legal,²⁵² gasoline prices could be advertised as “\$3.00 (cash discount) / \$3.30 (credit-card surcharge),” or vice versa. This pricing scheme, which effectively allows merchants to communicate price differences between credit-card and cash purchases,²⁵³ could serve to fully inform consumers just as mixed-framing disclosures do in the percent fat scenario.

To be sure, future research should focus on the breadth of the benefits of mixed-framing approaches. Does mixed framing work equally effectively across all industries and products? There might be ingredients, such as aspartame, whose health effects are so unclear that a mixed frame would not inform consumers any better than a single frame would.²⁵⁴ Would a consumer internalize any more valuable information from a label that stated “99% aspartame free / 1% aspartame” as opposed to a single-frame statement? Shifting to the medical context, information about the side effects and efficacy of vaccines, for instance, might benefit from a mixed-framing approach.²⁵⁵ Yet my proposal doesn’t discount the normative importance of pursuing more aggressive paternalistic regulation in limited high-stakes cases.²⁵⁶ In those cases, it might well be that regulators should pursue an approach that is biasing in a particular direction, rather

251. See *supra* notes 1–14 and accompanying text (discussing *Expressions Hair Design v. Schneiderman*, 137 S. Ct. 1144 (2017)).

252. See *Expressions Hair Design v. Schneiderman*, 117 N.E.3d 730, 733 (N.Y. 2018) (“[T]he legislative history of the statute clearly demonstrates that it was not intended to prohibit dual pricing.”); see also N.Y. GEN. BUS. LAW § 518 (McKinney 2018) (making it a crime, punishable by a \$500 fine and/or up to one year in prison, for any “seller in any sales transaction [to] impose a surcharge on a holder who elects to use a credit card in lieu of payment by cash, check, or similar means”); Transcript of Oral Argument at 60, *Expressions Hair Design*, 137 S. Ct. 1144 (No. 15-1391) (“JUSTICE KAGAN: Mr. Wu, you think . . . that the dual pricing scheme is legal; is that right? MR. WU: That’s correct.”).

253. Cf. *Expressions Hair Design*, 117 N.E.3d at 731, 737 (holding that a single-sticker pricing scheme such as “\$10.00, and if you pay with a credit card you will pay 3% extra” or “\$10.00, and if you pay with a credit card you will pay an additional 30 cents” is illegal under New York law because it “does not express the total dollars-and-cents credit card price and instead requires consumers to engage in an arithmetical calculation, in order to figure it out”).

254. See, e.g., Natalia Cardoso Santos et al., *Metabolic Effects of Aspartame in Adulthood: A Systematic Review and Meta-Analysis of Randomized Clinical Trials*, 58 CRITICAL REVIEWS FOOD SCI. & NUTRITION 2068, 2068 (2018) (“Data about harms or benefits associated with the consumption of aspartame, a non-nutritive sweetener worldwide consumed, is still controversial.”).

255. See, e.g., Bigman et al., *supra* note 63, at S70 (discussing a study employing mixed frames in assessing the perceived effectiveness of HPV vaccines).

256. See Jolls & Sunstein, *supra* note 18, at 211 (explaining that if women “underestimate the value of engaging in recommended self-examinations” to detect breast cancer, there is value in “framing the recommendation to self-examine in terms of losses rather than gains” in order to “increase the probability they attach to benefiting from a self-examination”).

than debiasing. Answers to these and other similar questions warrant further attention.

Moreover, further research on the inner workings of mixed framing as a debiasing tool could have broader implications for core assumptions in behavioral law-and-economics scholarship. Two potential explanations are worth floating. On the one hand, the distinction between intuitive (System 1) and deliberative (System 2) thought processes might explain the effects of mixed framing.²⁵⁷ Sometimes we process information “automatically and quickly, with little or no effort and no sense of voluntary control” (System 1); other times we “allocate[] attention to the effortful mental activities that demand it, . . . overruling the free-wheeling impulses and associations” (System 2).²⁵⁸ Mixed frames could be responsible for triggering System 2 processing, therefore leading to debiasing. On the other hand, mixed framing might be better described as a process of double biasing. The components of a mixed frame might “push people in conflicting directions,” thus nullifying the effects of the respective single frames.²⁵⁹ The statistically insignificant recency effect noted in Section II.B might be a piece of evidence in favor of this second alternative. Either way, behavioral law and economics might have to account for the possibility that, oftentimes, the best way to respond to the limits of human cognition is through neutral efforts to improve the accuracy and completeness of people’s factual perceptions.

To conclude, this Note does not aim to take a position on the effectiveness of other potential implementations of mixed framing. Nor does it wish to take a stance on which explanation (if any) lies behind the phenomenon of mixed framing. Rather, this Note’s goal is simple: to offer an initial theory of mixed framing. It hopes to jump-start the important conversation about mixed framing, offer some ideas, and reserve some central questions for later contributions. Mixed frames are superior to the more volatile and misleading single frames because they foster affective diversity, respect consumer autonomy, and promote informed decision-making without nudging consumers toward either end of the spectrum. Consumer-protection law is in need of a détente, and grounding product regulations on mixed frames would be a viable and promising move in that direction.

257. See, e.g., Daniel Kahneman, *A Perspective on Judgment and Choice: Mapping Bounded Rationality*, 58 AM. PSYCHOLOGIST 697, 698–99 (2003); see also KAHNEMAN, *supra* note 25, at 13 (discussing the distinction between System 1, or fast, thinking and System 2, or slow, thinking); Keith E. Stanovich & Richard F. West, *Individual Differences in Reasoning: Implications for the Rationality Debate?*, 23 BEHAV. BRAIN SCI. 645, 658–60 (2000) (summarizing the properties of two-process theories of reasoning).

258. KAHNEMAN, *supra* note 25, at 21.

259. See, e.g., Chong & Druckman, *supra* note 15, at 111, 113.